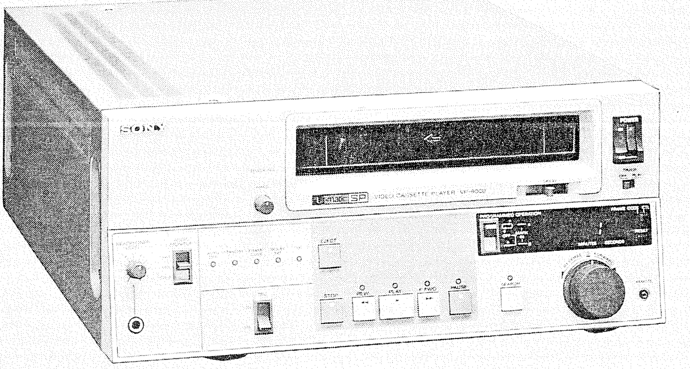
U-matic SP

VIDEO CASSETTE PLAYER

VP-9000

VOL-2



SONY®

SERVICE MANUAL

SPECIFICATIONS

System

Recording system	Rotary 2-head helical scan Luminance: fm recording Color signal: converted subcarrier direct recording
Video signal system	EIA standards, NTSC color

Video

Outputs	VIDEO OUT 1, 2 (BNC type) ×1 each 1.0 Vp-p ±0.2 Vp-p, 75 ohms, unbalanced sync negative TV (8-pin) ×1
Horizontal resolution	SP mode recording: 330 lines (both B/W and color) Conventional recording: 250 lines (both B/W and color)
S/N	SP mode Color: more than 46 dB Luminance (Y): more than 48 dB Conventional format Color: more than 46 dB (color) B/W: more than 48 dB
Subcarrier input	SC IN (BNC type) ×1 1 Vp-p (0.5 to 3 Vp-p), 75 ohms, unbalanced
Sync signal input	SYNC IN (BNC type) ×1 2.5 Vp-p (1 to 5 Vp-p), 75 ohms, unbalanced RF OUT (OFF TAPE) ×1 0.5 (0.3 to 1.0 Vp-p) Vp-p, 75 ohms, unbalanced

Audio

Outputs	AUDIO LINE OUT CH-1/L, CH-2/R (XLR 3-pin male) ×1 each +4 dB (at 600 ohm load), balanced AUDIO MONITOR (phono jack) ×1 −5 dB (at 47 k ohm load) TV (8 pin) ×1 HEADPHONES (stereo phone jack) For 8-ohm headphones Level adjustable (from −26 to −46 dB)
S/N	With Dolby NR off 52 dB (KSP, KSP-S tapes) 50 dB (KCA, KCS tapes) (both channel 1 and 2 at 3% distortion)
Frequency response	50 to 15,000Hz (both audio channel 1 and 2 with Dolby NR off)

Other functions

Memory backup of programmed operation	3 years from shipment
Pause	A still picture is obtained with long pause function
Search	Still, 1/30 to 5 times normal speed in both forward and reverse directions With RM-580 and RM-500: picture search with 8 times normal speed (both KSP and KSP-S tapes)
Tracking control	Possible
Skew control	Possible
Sync system	Automatic switching between internal and external
Dropout compensator	Built-in

Tape transport

Tape speed	95.3 mm/sec.
Playback time	Approx. 60 minutes (with KSP-60)
Fast forward and rewind time	Within 4 minutes (with KSP-60)
Wow and flutter	Less than 0.18% RMS
Tape compatibility	U-matic video cassette tapes
Usable tapes	KSP, KSP-S, KCA, KCS type

General

Power requirements	90 - 132 V AC, ±10%, 48 - 64 Hz
Power consumption	68 W (with the RM-580 and RFK-634)
Operating position	Horizontal
Storage temperature	−20°C to +60°C (−4°F to +140°F)
Operating temperature	5°C to 40°C (41° to 104°F)
Dimensions	424 × 192 × 492 mM (w/h/d) (16¾ × 7 ⅝ × 19⅜ inches) including projecting parts and controls
Weight	Approx. 17 kg. (37 lb 8 oz)
Supplied accessories	Operating instructions (1) RF modulator compartment cover (1)

Design and specifications are subject to change without notice.

Optional accessories

BKU-701 computer interface board
FCG-700 frame code generator
RX-707 auto search control unit (for RS-232C interface)
RX-353, RX-303 auto search control unit (for 33-pin interface)
RM-690 remote control unit (for REMOTE connector)
RM-580, RM-500 remote control unit (for 33-pin interface)
RFK-634 RF kit
RMM-507 rack mount kit
RM-555 multi remote control unit

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SECTION 13

SEMICONDUCTOR ELECTRODES

ここに記載されているIC、トランジスタ、ダイオードは、それぞれの機能を等価的に表わしたものです。したがって互換性を表わすものではありません。(互換性のない型名が併記されている事もあります。) 部品の交換をする時は、SPARE PARTS の章を参照して下さい。

ICs, transistors and diodes whoses functions are equivalent are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.

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等価回路はICメーカーのData Bookに従いました。

The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

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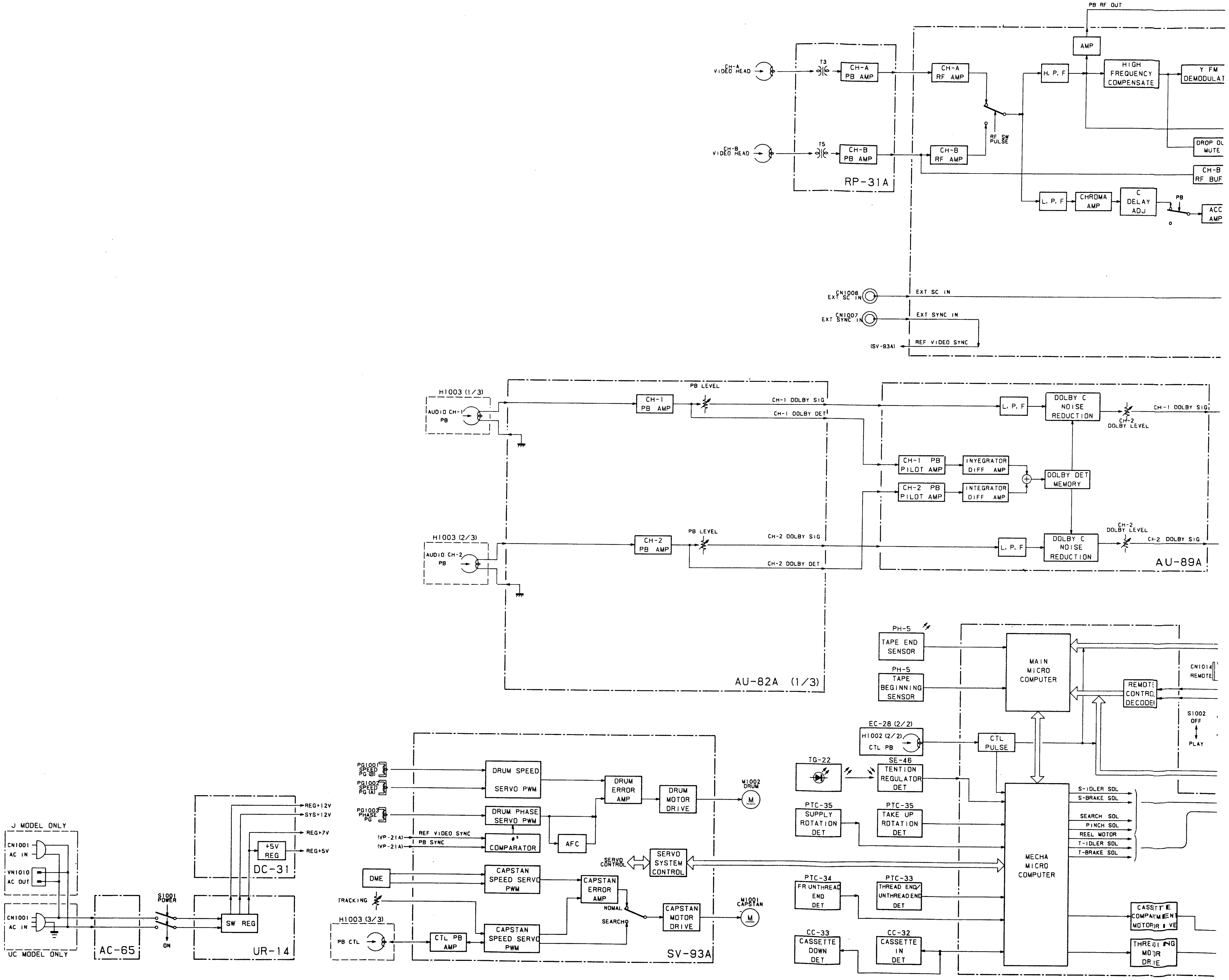
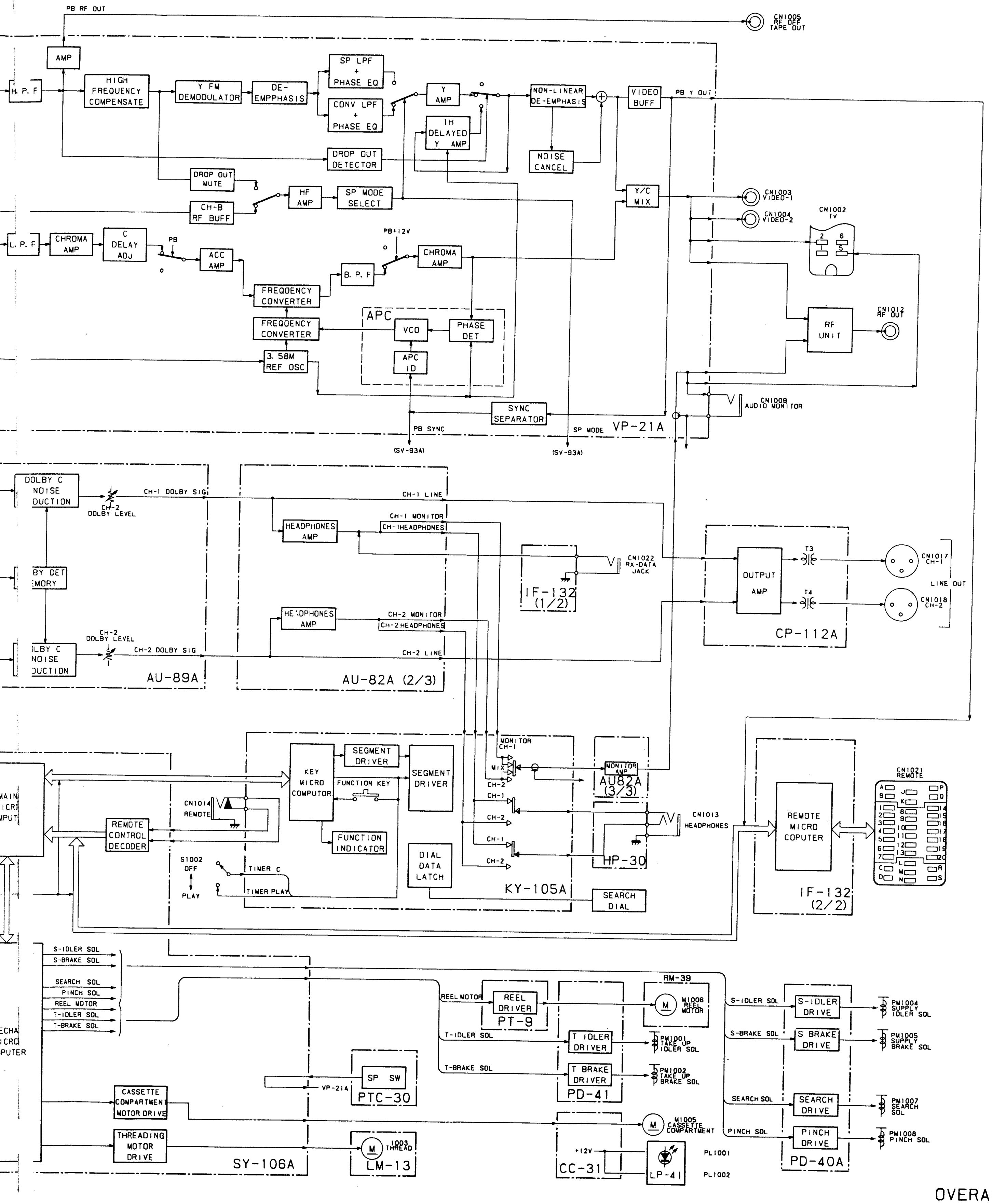
SECTION 12
BLOCK DIAGRAM

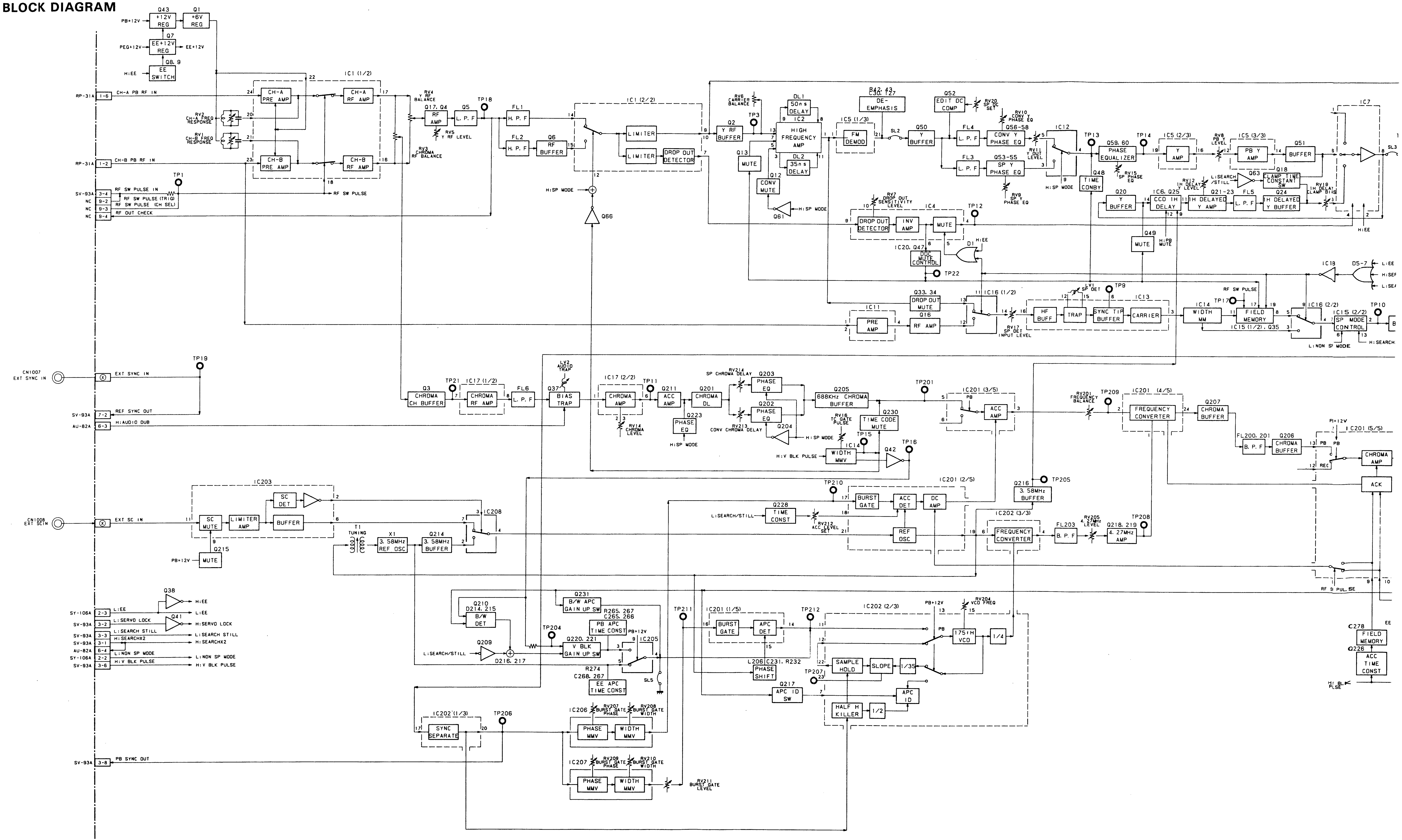
OVERALL
BLOCK DIAGRAM


PB RF OUT
AMP
CH-A VIDEO HEAD
T3
CH-A PB AMP
CH-A RF AMP
H. P. F
HIGH FREQUENCY COMPENSATE
Y FM DEMODULAT
CH-B VIDEO HEAD
T5
CH-B PB AMP
CH-B RF AMP
RF SW PULSE
DROP OU MUTE
CH-B RF BUF
RP-31A
L. P. F
CHROMA AMP
C DELAY ADJ
PB
ACC AMP
CN1008 EXT SC IN
EXT SC IN
CN1007 EXT SYNC IN
EXT SYNC IN
(SV-93A)
REF VIDEO SYNC
H1003 (1/3)
AUDIO CH-1 PB
PB LEVEL
CH-1 PB AMP
CH-1 DOLBY SIG
CH-1 DOLBY DET
L. P. F
DOLBY C NOISE REDUCTION
CH-1 DOLBY SIG
CH-2 DOLBY LEVEL
CH-1 PB PILOT AMP
INYEGRATOR DIFF AMP
CH-2 PB PILOT AMP
INTEGRATOR DIFF AMP
DOLBY DET MEMORY
H1003 (2/3)
AUDIO CH-2 PB
PB LEVEL
CH-2 PB AMP
CH-2 DOLBY SIG
CH-2 DOLBY DET
L. P. F
DOLBY C NOISE REDUCTION
CH-2 DOLBY LEVEL
CH-2 DOLBY SIG
AU-89A
AU-82A (1/3)
PH-5
TAPE END SENSOR
PH-5
TAPE BEGINNING SENSOR
MAIN MICRO COMPUTER
CN1014
REMOTE
REMOTE CONTROL DECODER
S1002
OFF
PLAY
EC-28 (2/2)
H1002 (2/2)
CTL PB
CTL PULSE
TG-22
SE-46
TENTION REGULATOR DET
PTC-35
SUPPLY ROTATION DET
PTC-35
TAKE UP ROTATION DET
S-IDLER SOL
S-BRAKE SOL
SEARCH SOL
PINCH SOL
REEL MOTOR
T-IDLER SOL
T-BRAKE SOL
MECHA MICRO COMPUTER
PTC-34
FR UNTHREAD END DET
PTC-33
THREAD END/ UNTHREAD END DET
CC-33
CASSETTE DOWN DET
CC-32
CASSETTE IN DET
CASSETTE COMPARTMENT MOTOR DRIVE
THREADING MOTOR DRIVE
PG1001 SPEED PG (B)
PG1002 SPEED PG (A)
PG1003 PHASE PG
DRUM SPEED SERVO PWM
DRUM PHASE SERVO PWM
DRUM ERROR AMP
DRUM MOTOR DRIVE
M1002 DRUM
M
(VP-21A)
REF VIDEO SYNC
(VP-21A)
PB SYNC
COMPARATOR
AFC
SERVO CONTROL
SERVO SYSTEM CONTROL
DME
CAPSTAN SPEED SERVO PWM
CAPSTAN ERROR AMP
NOMAL
SEARCH
CAPSTAN MOTOR DRIVE
M1001 CAPSTAN
M
TRACKING
H1003 (3/3)
PB CTL
CTL PB AMP
CAPSTAN SPEED SERVO PWM
SV-93A
J MODEL ONLY
CN1001 AC IN
VN1010 AC OUT
CN1001 AC IN
UC MODEL ONLY
AC-65
S1001 POWER
ON
SW REG
UR-14
+5V REG
DC-31
REG+12V
SYS+12V
REG+7V
REG+5V


PB RF OUT
CN1006 RF OFF TAPE OUT
AMP
H. P. F
HIGH FREQUENCY COMPENSATE
Y FM DEMODULATOR
DE-EMPPHASIS
SP LPF + PHASE EQ
CONV LPF + PHASE EQ
Y AMP
1H DELAYED Y AMP
NON-LINEAR DE-EMPHASIS
VIDEO BUFF
PB Y OUT
NOISE CANCEL
DROP OUT DETECTOR
DROP OUT MUTE
CH-B RF BUFF
HF AMP
SP MODE SELECT
Y/C MIX
CN1003 VIDEO-1
CN1004 VIDEO-2
CN1002 TV
L. P. F
CHROMA AMP
C DELAY ADJ
PB
ACC AMP
PB+12V
B. P. F
CHROMA AMP
FREQENCY CONVERTER
FREQENCY CONVERTER
APC
VCO
PHASE DET
APC ID
3. 58M REF OSC
RF UNIT
CN1012 RF OUT
CN1009 AUDIO MONITOR
SYNC SEPARATOR
PB SYNC
SP MODE
VP-21A
(SV-93A)
(SV-93A)
DOLBY C NOISE DUCTION
CH-2 DOLBY LEVEL
CH-1 DOLBY SIG
BY DET EMORY
DLBY C NOISE DUCTION
CH-2 DOLBY LEVEL
CH-2 DOLBY SIG
AU-89A
CH-1 LINE
CH-1 MONITOR
HEADPHONES AMP
CH-1HEADPHONES
HEADPHONES AMP
CH-2 MONITOR
CH-2HEADPHONES
CH-2 LINE
AU-82A (2/3)
IF-132 (1/2)
CN1022 RX-DATA JACK
OUTPUT AMP
T3
T4
CP-112A
CN1017 CH-1
CN1018 CH-2
LINE OUT
MAIN MICRO COMPUTER
CN1014 REMOTE
REMOTE CONTROL DECODER
KEY MICRO COMPUTOR
SEGMENT DRIVER
SEGMENT DRIVER
FUNCTION KEY
FUNCTION INDICATOR
DIAL DATA LATCH
S1002 OFF PLAY
TIMER C
TIMER PLAY
KY-105A
SEARCH DIAL
MONITOR CH-1
MIX
CH-2
CH-1
CH-2
CH-1
CH-2
MONITOR AMP
AU82A (3/3)
CN1013 HEADPHONES
HP-30
REMOTE MICRO COPUTER
IF-132 (2/2)
CN1021 REMOTE
MECHA MICRO COMPUTER
S-IDLER SOL
S-BRAKE SOL
SEARCH SOL
PINCH SOL
REEL MOTOR
T-IDLER SOL
T-BRAKE SOL
CASSETTE COMPARTMENT MOTOR DRIVE
THREADING MOTOR DRIVE
SY-106A
VP-21A
SP SW
PTC-30
M1003 THREAD
LM-13
REEL MOTOR
REEL DRIVER
PT-9
T-IDLER SOL
T IDLER DRIVER
T-BRAKE SOL
T BRAKE DRIVER
PD-41
RM-39
M1006 REEL MOTOR
PM1001 TAKE UP IDLER SOL
PM1002 TAKE UP BRAKE SOL
M1005 CASSETTE COMPARTMENT
+12V
CC-31
LP-41
PL1001
PL1002
S-IDLER SOL
S-IDLER DRIVE
S-BRAKE SOL
S BRAKE DRIVE
SEARCH SOL
SEARCH DRIVE
PINCH SOL
PINCH DRIVE
PD-40A
PM1004 SUPPLY IDLER SOL
PM1005 SUPPLY BRAKE SOL
PM1007 SEARCH SOL
PM1008 PINCH SOL

OVERALL
VP-9000

VIDEO SYSTEM BLOCK DIAGRAM


Q43 +12V REG
Q1 +6V REG
PB+12V
Q7 EE+12V REG
PEG+12V
EE+12V
Q8, 9 EE SWITCH
H:EE
RP-31A 1-6 CH-A PB RF IN
RP-31A 1-2 CH-B PB RF IN
RV2 CH-A FREQ RESPONSE
RV1 CH-B FREQ RESPONSE
IC1 (1/2)
CH-A PRE AMP
CH-B PRE AMP
CH-A RF AMP
CH-B RF AMP
RV4 Y RF BALANCE
RV3 CHROMA RF BALANCE
Q17, Q4 RF AMP
RV5 Y RF LEVEL
Q5 L.P.F
TP18
FL1 H.P.F
FL2 H.P.F
Q6 RF BUFFER
IC1 (2/2)
LIMITER
LIMITER
DROP OUT DETECTOR
H:SP MODE
Q66
SV-93A 3-4 RF SW PULSE IN
NC 9-2 RF SW PULSE (TRIG)
NC 9-3 RF SW PULSE (CH SEL)
NC 9-4 RF OUT CHECK
TP1
RF SW PULSE
RV6 CARRIER BALANCE
TP3
Q2 Y RF BUFFER
DL1 50ns DELAY
IC2 HIGH FREQUENCY AMP
DL2 35ns DELAY
Q13 MUTE
Q12 CONV MUTE
Q61
H:SP MODE
R42, 43 C30, 127 DE-EMPHASIS
IC5 (1/3) FM DEMOD
SL2
Q50 Y BUFFER
Q52 EDIT DC COMP
RV20 SP DC SET
FL4 L.P.F
FL3 L.P.F
Q56-58 CONV Y PHASE EQ
Q53-55 SP Y PHASE EQ
RV10 CONV Y PHASE EQ
RV11 Y OUT LEVEL
RV9 SP Y PHASE EQ
IC12
H:SP MODE
TP13
Q48 TIME CONBY
Q59, 60 PHASE EQUALIZER
RV15 SP PHASE EQ
TP14
IC5 (2/3) Y AMP
RV8 PB Y LEVEL
IC5 (3/3) PB Y AMP
Q51 BUFFER
IC7
SL3
L:SEARCH /STILL
Q63
Q18 CLAMP TIME CONSTANT SW
RV19 1H DELAY CLAMP BIAS
Q20 Y BUFFER
IC6, Q25 CCD 1H DELAY
RV12 1H DELAY LEVEL
Q21-23 1H DELAYED Y AMP
FL5 L.P.F
Q24 1H DELAYED Y BUFFER
H:EE
Q49 MUTE
H:PB MUTE
RV7 DROP OUT SENSITIVITY LEVEL
IC4
DROP OUT DETECTOR
INV AMP
MUTE
TP12
IC20, Q47 DOC MUTE CONTROL
D1
H:EE
TP22
IC18
D5-7
L:EE
H:SEARCH
L:SEARCH
Q33, 34 DROP OUT MUTE
Q16 RF AMP
IC11 PRE AMP
IC16 (1/2)
RV17 SP DET INPUT LEVEL
LV1 SP DET
TP9
IC13
HF BUFF
TRAP
SYNC TIP BUFFER
CARRIER
IC14 WIDTH MM
RF SW PULSE
TP17
FIELD MEMORY
IC15 (1/2), Q35
IC16 (2/2)
IC15 (2/2) SP MODE CONTROL
TP10
L:NON SP MODE
H:SEARCH
CN1007 EXT SYNC IN
EXT SYNC IN
TP19
SV-93A 7-2 REF SYNC OUT
AU-82A 6-3 H:AUDIO DUB
Q3 CHROMA CH BUFFER
TP21
IC17 (1/2) CHROMA RF AMP
FL6 L.P.F
LV2 AUDIO TRAP
Q37 BIAS TRAP
IC17 (2/2) CHROMA AMP
RV14 CHROMA LEVEL
TP11
Q211 ACC AMP
Q201 CHROMA DL
Q223 PHASE EQ
H:SP MODE
RV214 SP CHROMA DELAY
Q203 PHASE EQ
Q202 PHASE EQ
RV213 CONV CHROMA DELAY
Q204
Q205 688KHz CHROMA BUFFER
RV16 TC GATE PULSE
Q230 TIME CODE MUTE
H:SP MODE
TP15
IC14
H:V BLK PULSE
WIDTH MMV
Q42
TP16
TP201
IC201 (3/5) ACC AMP
PB
RV201 FREQUENCY BALANCE
TP209
IC201 (4/5) FREQUENCY CONVERTER
Q207 CHROMA BUFFER
FL200, 201 B.P.F
Q206 CHROMA BUFFER
PI+12V
IC201 (5/5)
PB
REC
CHROMA AMP
ACK
IC203
CN1008 EXT SCIN
EXT SC IN
SC MUTE
LIMITER AMP
SC DET
BUFFER
Q215
PB+12V MUTE
IC208
T1 TUNING
X1 3.58MHz REF OSC
Q214 3.58MHz BUFFER
TP210
IC201 (2/5)
BURST GATE
ACC DET
DC AMP
Q228 TIME CONST
L:SEARCH/STILL
RV212 ACC LEVEL SET
REF OSC
Q216 3.58MHz BUFFER
TP205
IC202 (3/3) FREQUENCY CONVERTER
FL203 B.P.F
RV205 4.27MHz LEVEL
Q218, 219 4.27MHz AMP
TP208
RF SW PULSE
SY-106A 2-3 L:EE
SV-93A 3-2 L:SERVO LOCK
SV-93A 3-3 L:SEARCH STILL
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Q38 H:EE
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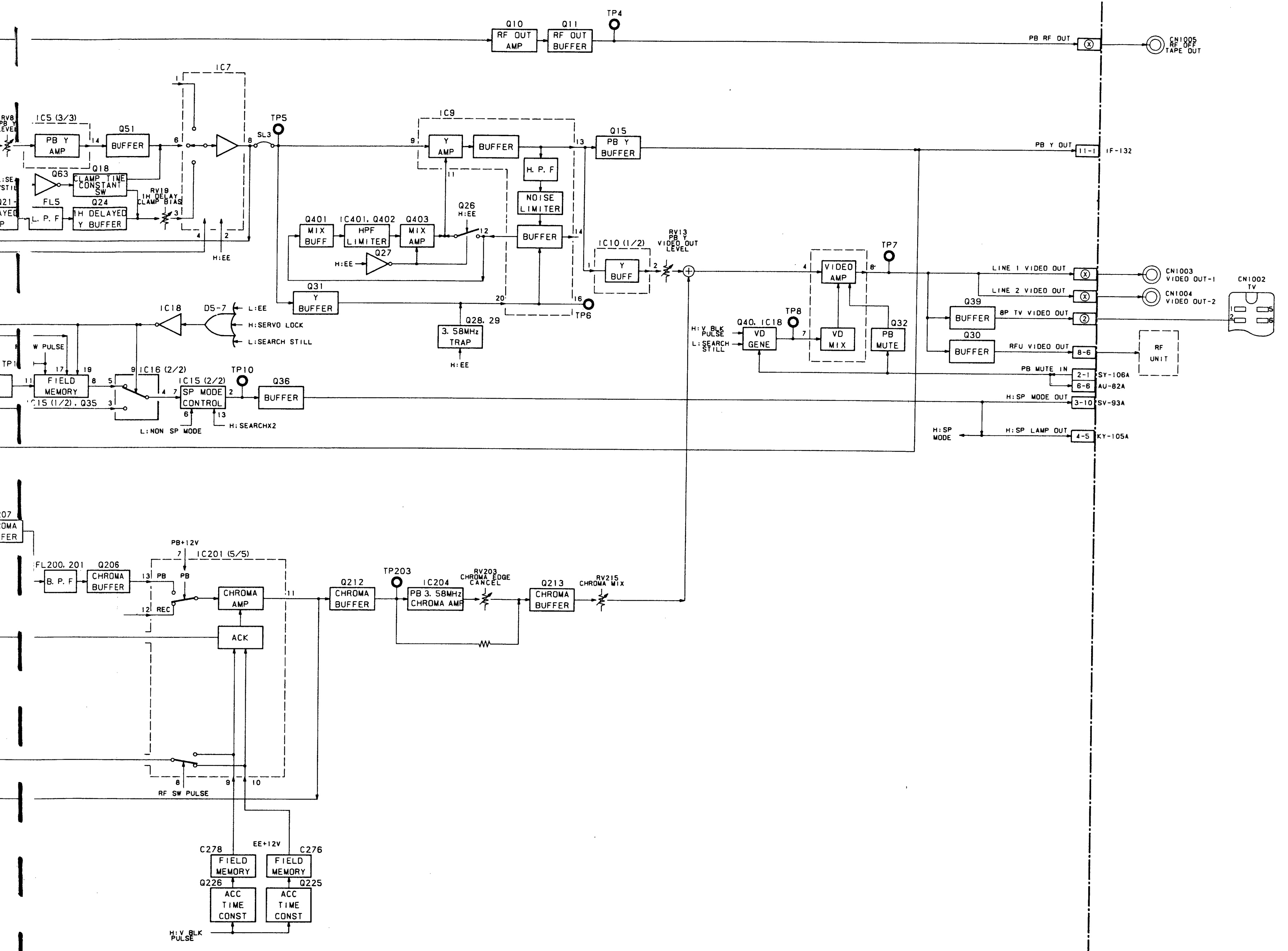
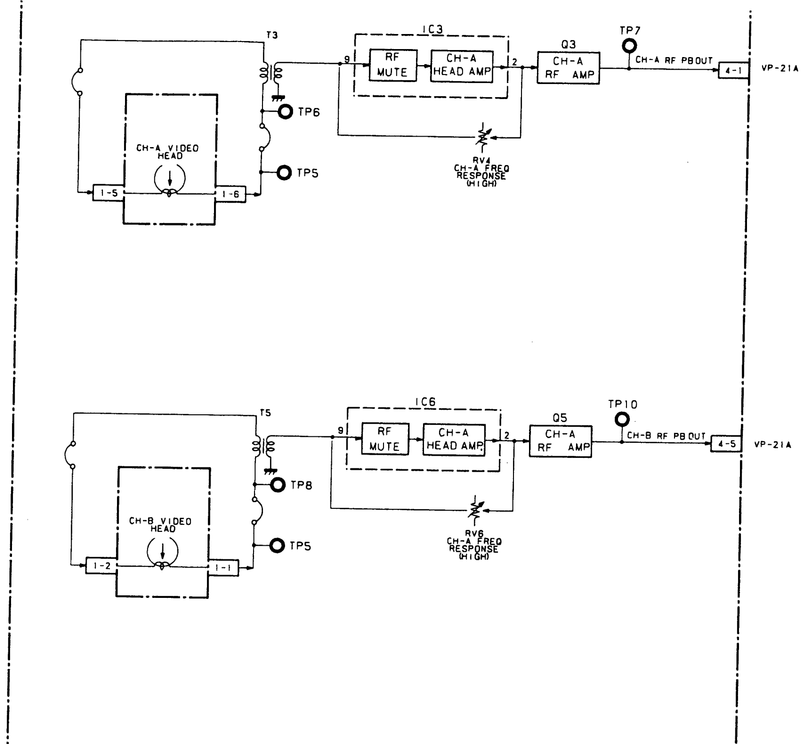
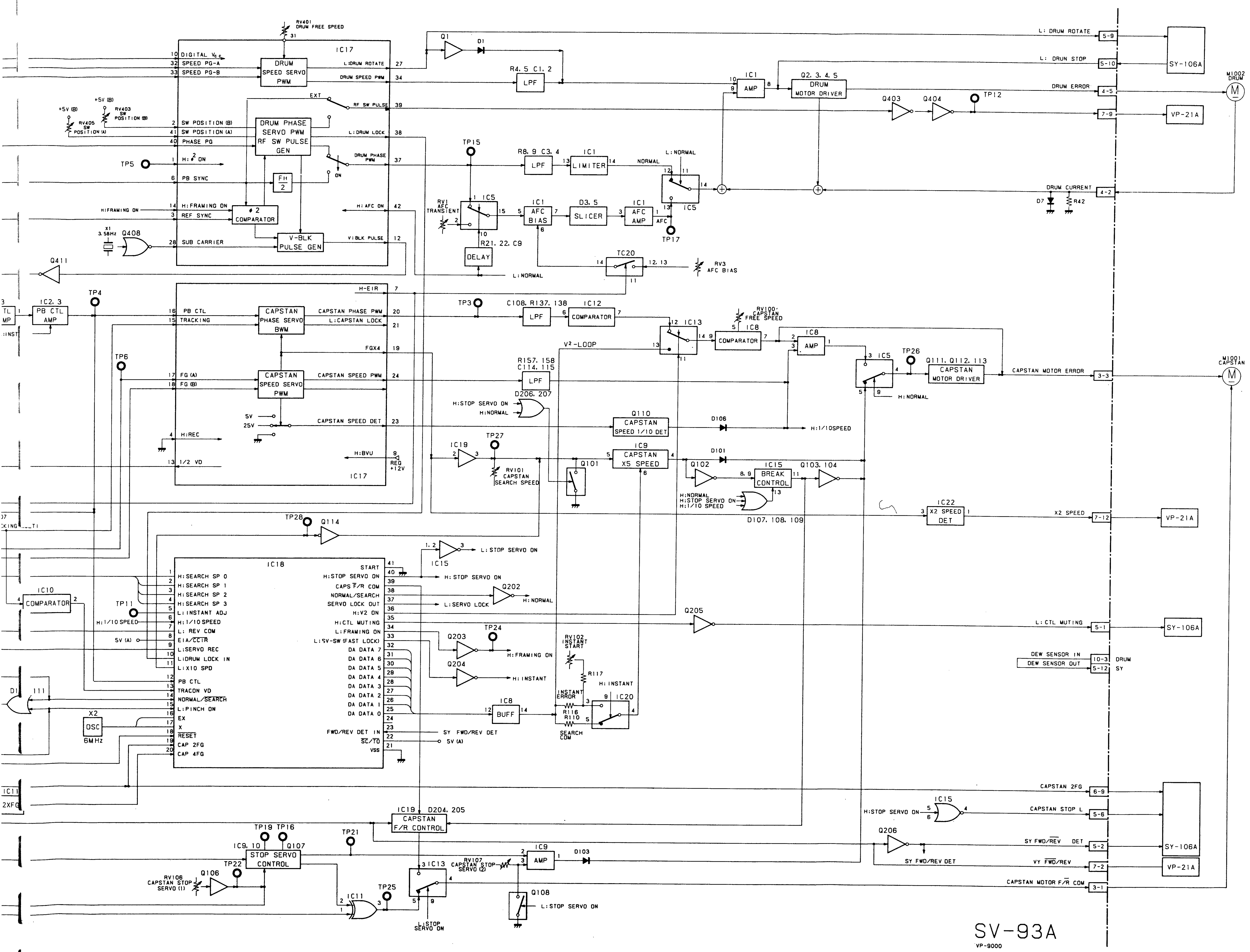
L:SEARCH STILL
H:SEARCHX2
L:NON SP MODE
H:V BLK PULSE
Q231 B/W APC GAIN UP SW
Q210 D214, 215 B/W DET
R265, 267 C265, 266 PB APC TIME CONST
PB+12V
Q209
L:SEARCH/STILL
D216, 217
TP204
Q220, 221 V BLK GAIN UP SW
IC205
SL5
R274 C268, 267 EE APC TIME CONST
TP211
IC201 (1/5) BURST GATE
APC DET
L206, C231, R232 PHASE SHIFT
Q217 APC ID SW
TP212
IC202 (2/3)
PB+12V
RV204 VCO FREQ
175fH VCO
1/4
SAMPLE HOLD
SLOPE
1/35
TP207
APC ID
HALF H KILLER
1/2
C278 FIELD MEMORY
Q226 ACC TIME CONST
H:V BLK PULSE
EE
IC202 (1/3) SYNC SEPARATE
TP206
IC206 RV207 BURST GATE PHASE
RV208 BURST GATE WIDTH
PHASE MMV
WIDTH MMV
IC207 RV209 BURST GATE PHASE
RV210 BURST GATE WIDTH
PHASE MMV
WIDTH MMV
RV211 BURST GATE LEVEL
SV-93A 3-8 PB SYNC OUT


Q10
RF OUT AMP
Q11
RF OUT BUFFER
TP4
PB RF OUT
CN1005 RF OFF TAPE OUT
IC7
IC5 (3/3)
PB Y AMP
Q51
BUFFER
TP5
SL3
Q63
Q18
CLAMP TIME CONSTANT SW
RV19 1H DELAY CLAMP BIAS
FLS
L. P. F
Q24
1H DELAYED Y BUFFER
H:EE
IC9
Y AMP
BUFFER
H. P. F
NOISE LIMITER
BUFFER
Q15
PB Y BUFFER
PB Y OUT
IF-132
Q401
MIX BUFF
IC401, Q402
HPF LIMITER
Q403
MIX AMP
Q26 H:EE
Q27
H:EE
Q31
Y BUFFER
3.58MHz TRAP
Q28, 29
H:EE
TP6
IC10 (1/2)
Y BUFF
RV13 PB Y VIDEO OUT LEVEL
TP7
VIDEO AMP
LINE 1 VIDEO OUT
LINE 2 VIDEO OUT
CN1003 VIDEO OUT-1
CN1004 VIDEO OUT-2
CN1002 TV
Q39
BUFFER
8P TV VIDEO OUT
Q30
BUFFER
RFU VIDEO OUT
RF UNIT
TP8
Q40, IC16
VD GENE
VD MIX
Q32
PB MUTE
H:V BLK PULSE
L:SEARCH STILL
PB MUTE IN
2-1 SY-106A
6-6 AU-82A
H:SP MODE OUT
3-10 SV-93A
H:SP MODE
H:SP LAMP OUT
4-5 KY-105A
IC18
D5-7
L:EE
H:SERVO LOCK
L:SEARCH STILL
W PULSE
FIELD MEMORY
IC15 (1/2), Q35
IC16 (2/2)
TP10
IC15 (2/2)
SP MODE CONTROL
Q36
BUFFER
L:NON SP MODE
H:SEARCHx2
FL200, 201
B. P. F
Q206
CHROMA BUFFER
PB+12V
IC201 (5/5)
PB
REC
CHROMA AMP
ACK
Q212
CHROMA BUFFER
TP203
IC204
PB 3.58MHz CHROMA AMP
RV203 CHROMA EDGE CANCEL
Q213
CHROMA BUFFER
RV215 CHROMA MIX
RF SW PULSE
EE+12V
C278
FIELD MEMORY
Q226
ACC TIME CONST
C276
FIELD MEMORY
Q225
ACC TIME CONST
H:V BLK PULSE

VP-21A
VP-9000

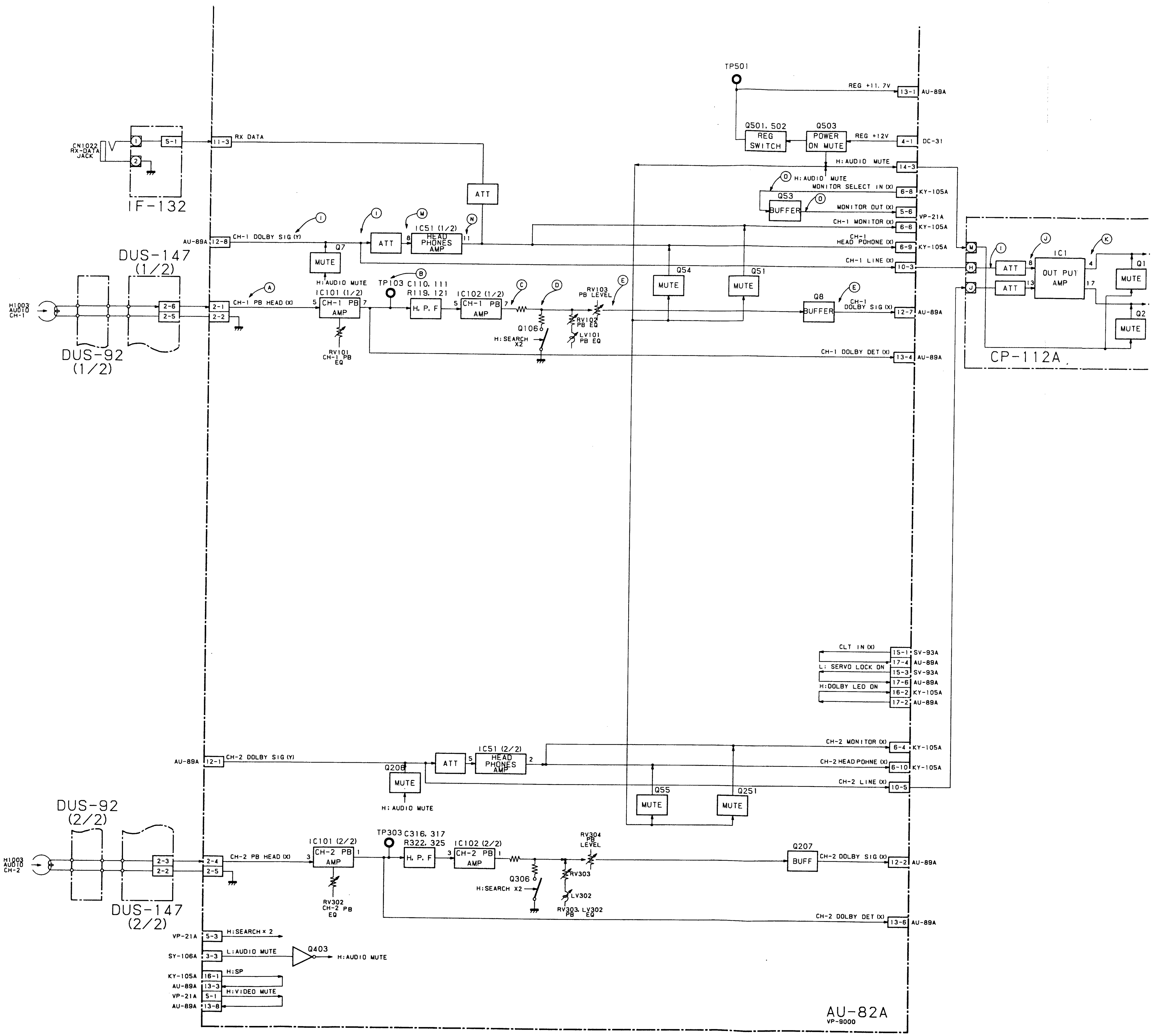

T3
IC3
RF MUTE
CH-A HEAD AMP
Q3
CH-A RF AMP
TP7
CH-A RF PBOUT
4-1
VP-21A
TP6
TP5
CH-A VIDEO HEAD
1-5
1-6
RV4 CH-A FREQ RESPONSE (HIGH)
T5
IC6
RF MUTE
CH-A HEAD AMP
Q5
CH-A RF AMP
TP10
CH-B RF PBOUT
4-5
VP-21A
TP8
TP5
CH-B VIDEO HEAD
1-2
1-1
RV8 CH-A FREQ RESPONSE (HIGH)

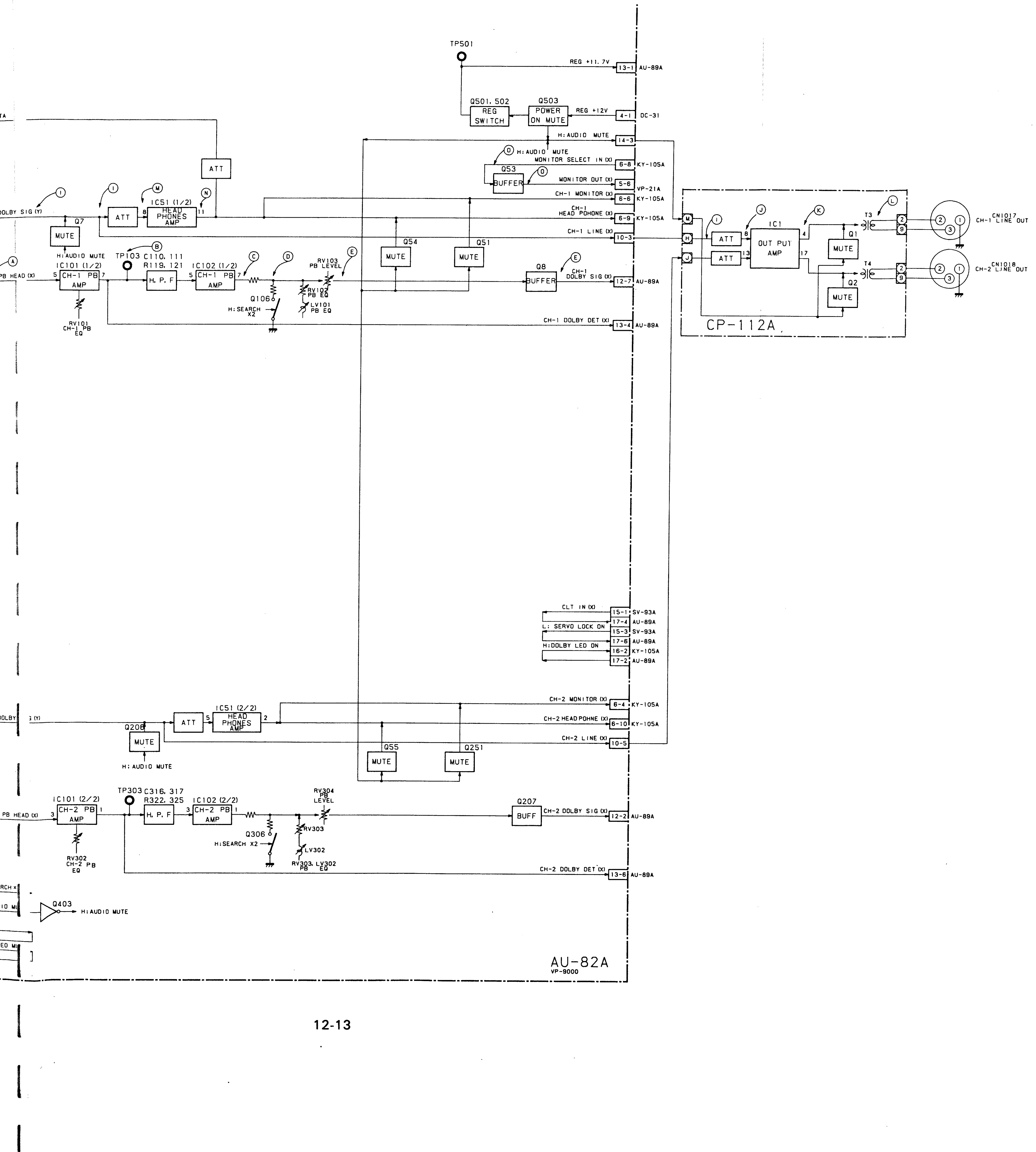
RP-31A
VP-9000


RV401 DRUM FREE SPEED
IC17
DIGITAL Vcc
SPEED PG-A
SPEED PG-B
DRUM SPEED SERVO PWM
L:DRUM ROTATE
DRUM SPEED PWM
EXT
RF SW PULSE
SW POSITION (B)
SW POSITION (A)
PHASE PG
DRUM PHASE SERVO PWM RF SW PULSE GEN
L:DRUM LOCK
DRUM PHASE PWM
H:φ2 ON
PB SYNC
FH/2
H:FRAMING ON
REF SYNC
φ2 COMPARATOR
H:AFC ON
V-BLK PULSE GEN
V:BLK PULSE
SUB CARRIER
X1 3.58MHz
Q408
Q411
+5V (B)
RV403 SW POSITION (B)
RV405 SW POSITION (A)
TP5
Q1
D1
R4.5 C1.2
LPF
IC1
AMP
Q2.3.4.5 DRUM MOTOR DRIVER
Q403
Q404
TP12
L: DRUM ROTATE
L: DRUN STOP
DRUM ERROR
5-9
5-10
4-5
7-9
SY-106A
VP-21A
M1002 DRUM
TP15
R8.9 C3.4
LIMITER
NORMAL
L:NORMAL
IC5
RV1 AFC TRANSIENT
AFC BIAS
D3.5
SLICER
AFC AMP
AFC
TP17
R21.22.C9
DELAY
L:NORMAL
TC20
RV3 AFC BIAS
DRUM CURRENT
D7
R42
4-2
H-EIR
IC2.3 PB CTL AMP
TP4
PB CTL
TRACKING
CAPSTAN PHASE SERVO BWM
CAPSTAN PHASE PWM
L:CAPSTAN LOCK
FGX4
TP6
FG (A)
FG (B)
CAPSTAN SPEED SERVO PWM
CAPSTAN SPEED PWM
5V
25V
CAPSTAN SPEED DET
H:REC
H:BVU
REG +12V
1/2 VD
TP3
C108.R137.138
IC12 COMPARATOR
V2-LOOP
IC13
RV100 CAPSTAN FREE SPEED
IC8 COMPARATOR
IC8 AMP
IC5
TP26
Q111.Q112.113 CAPSTAN MOTOR DRIVER
H:NORMAL
CAPSTAN MOTOR ERROR
3-3
M1001 CAPSTAN
R157.158 C114.115
D206.207
H:STOP SERVO ON
H:NORMAL
Q110 CAPSTAN SPEED 1/10 DET
D106
H:1/10SPEED
IC19
TP27
RV101 CAPSTAN SEARCH SPEED
Q101
IC9 CAPSTAN X5 SPEED
D101
Q102
IC15 BREAK CONTROL
Q103.104
H:NORMAL
H:STOP SERVO ON
H:1/10 SPEED
D107.108.109
IC22 X2 SPEED DET
X2 SPEED
7-12
VP-21A
TP28
Q114
IC15
L: STOP SERVO ON
H: STOP SERVO ON
Q202
H:NORMAL
L: SERVO LOCK
Q205
L: CTL MUTING
5-1
SY-106A
DEW SENSOR IN
DEW SENSOR OUT
10-3 DRUM
5-12 SY
IC18
H:SEARCH SP 0
H:SEARCH SP 1
H:SEARCH SP 2
H:SEARCH SP 3
L:INSTANT ADJ
H:1/10 SPEED
L: REV COM
EIA/CCIR
L:SERVO REC
L:DRUM LOCK IN
L:X10 SPD
PB CTL
TRACON VD
NORMAL/SEARCH
L:PINCH ON
EX
X
RESET
CAP 2FG
CAP 4FG
START
H:STOP SERVO ON
CAPS F/R COM
NORMAL/SEARCH
SERVO LOCK OUT
H:V2 ON
H:CTL MUTING
L:FRAMING ON
L:SV-SW (FAST LOCK)
DA DATA 7
DA DATA 6
DA DATA 5
DA DATA 4
DA DATA 3
DA DATA 2
DA DATA 1
DA DATA 0
FWD/REV DET IN
SC/TO
VSS
SY FWD/REV DET
SV (A)
IC10 COMPARATOR
TP11
H:1/10 SPEED
SV (A)
X2 OSC 6MHz
TP24
Q203
H:FRAMING ON
Q204
H: INSTANT
RV102 INSTANT START
R117
H: INSTANT
INSTANT ERROR
R116
R110
SEARCH COM
IC20
IC8 BUFF
CAPSTAN 2FG
6-9
IC15
H:STOP SERVO ON
CAPSTAN STOP L
5-6
Q206
SY FWD/REV DET
5-2
SY FWD/REV DET
VY FWD/REV
7-2
SY-106A
VP-21A
CAPSTAN MOTOR F/R COM
3-1
IC19 D204.205 CAPSTAN F/R CONTROL
TP19 TP16
IC9.10 Q107 STOP SERVO CONTROL
TP21
TP22
Q106
RV106 CAPSTAN STOP SERVO (1)
IC11
TP25
IC13
RV107 CAPSTAN STOP SERVO (2)
IC9 AMP
D103
Q108
L:STOP SERVO ON
L:STOP SERVO ON
IC1I
2XFG

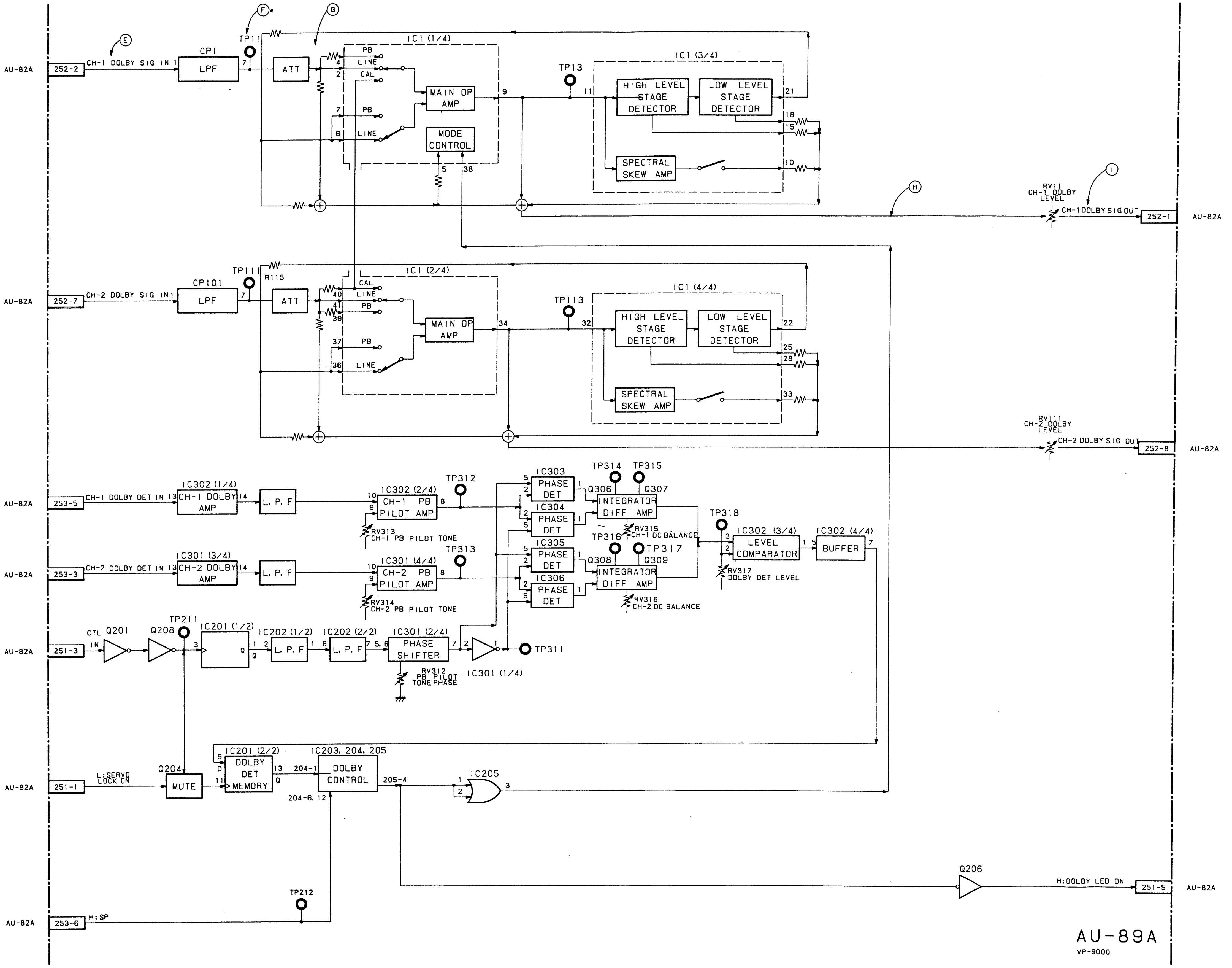
SV-93A
VP-9000

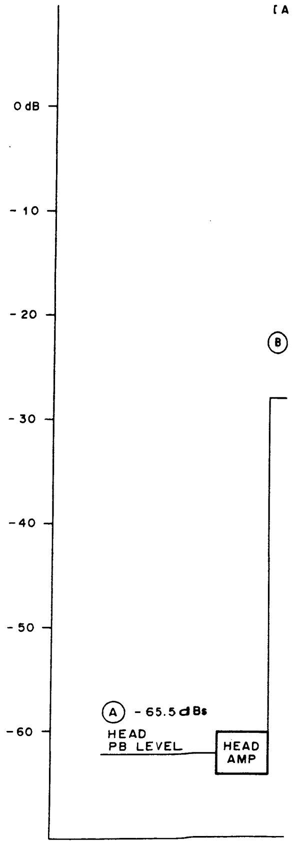
AUDIO SYSTEM BLOCK DIAGRAM

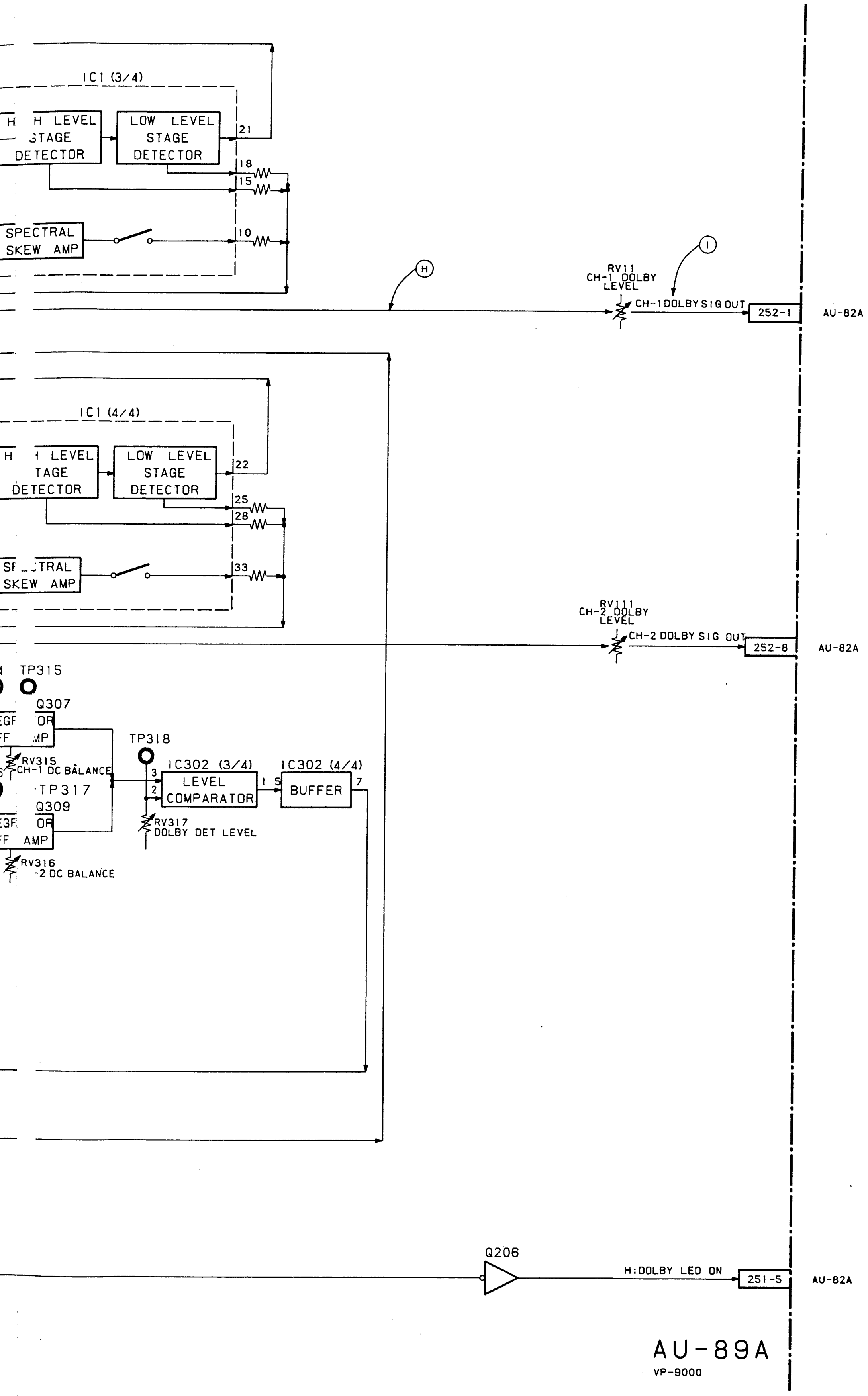

CN1022 RX-DATA JACK
①
②
5-1
IF-132
11-3
RX DATA
ATT
AU-89A
12-8
CH-1 DOLBY SIG (Y)
Ⓘ
Ⓜ
Ⓝ
IC51 (1/2)
HEAD PHONES AMP
8
11
Q7
MUTE
H: AUDIO MUTE
DUS-147 (1/2)
DUS-92 (1/2)
H1003 AUDIO CH-1
2-6
2-5
2-1
2-2
Ⓐ
CH-1 PB HEAD (X)
IC101 (1/2)
CH-1 PB AMP
5
7
RV101 CH-1 PB EQ
Ⓑ
TP103
C110, 111
R119, 121
H. P. F
IC102 (1/2)
CH-1 PB AMP
Ⓒ
Ⓓ
Ⓔ
Q106
H: SEARCH X2
RV102 PB EQ
LV101 PB EQ
RV103 PB LEVEL
TP501
REG +11. 7V
13-1
AU-89A
Q501, 502
REG SWITCH
Q503
POWER ON MUTE
REG +12V
4-1
DC-31
H: AUDIO MUTE
14-3
Ⓞ
H: AUDIO MUTE
MONITOR SELECT IN (X)
6-8
KY-105A
Q53
BUFFER
MONITOR OUT (X)
5-6
VP-21A
CH-1 MONITOR (X)
6-6
KY-105A
CH-1 HEAD POHONE (X)
6-9
KY-105A
CH-1 LINE (X)
10-3
Q54
MUTE
Q51
MUTE
Q8
BUFFER
CH-1 DOLBY SIG (X)
12-7
AU-89A
CH-1 DOLBY DET (X)
13-4
AU-89A
Ⓜ
Ⓗ
Ⓙ
Ⓘ
Ⓙ
Ⓚ
ATT
ATT
IC1
OUT PUT AMP
8
13
4
17
Q1
MUTE
Q2
MUTE
CP-112A
CLT IN (X)
15-1
SV-93A
17-4
AU-89A
L: SERVO LOCK ON
15-3
SV-93A
17-6
AU-89A
H:DOLBY LED ON
16-2
KY-105A
17-2
AU-89A
CH-2 MONITOR (X)
6-4
KY-105A
CH-2 HEAD POHNE (X)
6-10
KY-105A
CH-2 LINE (X)
10-5
AU-89A
12-1
CH-2 DOLBY SIG (Y)
Q206
MUTE
H: AUDIO MUTE
ATT
IC51 (2/2)
HEAD PHONES AMP
5
2
Q55
MUTE
Q251
MUTE
DUS-92 (2/2)
DUS-147 (2/2)
H1003 AUDIO CH-2
2-3
2-2
2-4
2-5
CH-2 PB HEAD (X)
IC101 (2/2)
CH-2 PB AMP
3
1
RV302 CH-2 PB EQ
TP303
C316, 317
R322, 325
H. P. F
IC102 (2/2)
CH-2 PB AMP
3
1
Q306
H: SEARCH X2
RV303
LV302
RV303, LV302 PB EQ
RV304 PB LEVEL
Q207
BUFF
CH-2 DOLBY SIG (X)
12-2
AU-89A
CH-2 DOLBY DET (X)
13-6
AU-89A
VP-21A
5-3
H: SEARCH × 2
SY-106A
3-3
L: AUDIO MUTE
Q403
H: AUDIO MUTE
KY-105A
16-1
H: SP
AU-89A
13-3
VP-21A
5-1
H: VIDEO MUTE
AU-89A
13-8
AU-82A
VP-9000


TP501
REG +11.7V
13-1 AU-89A
Q501, 502
REG SWITCH
Q503
POWER ON MUTE
REG +12V
4-1 DC-31
H: AUDIO MUTE
14-3
H: AUDIO MUTE
MONITOR SELECT IN (X)
6-8 KY-105A
Q53
BUFFER
MONITOR OUT (X)
5-6 VP-21A
CH-1 MONITOR (X)
6-6 KY-105A
CH-1 HEAD POHONE (X)
6-9 KY-105A
CH-1 LINE (X)
10-3
ATT
DOLBY SIG (Y)
Q7
MUTE
H: AUDIO MUTE
IC51 (1/2)
HEAD PHONES AMP
Q54
MUTE
Q51
MUTE
PB HEAD (X)
IC101 (1/2)
CH-1 PB AMP
RV101 CH-1 PB EQ
TP103
C110, 111 R119, 121
H. P. F
IC102 (1/2)
CH-1 PB AMP
Q106
H: SEARCH X2
RV103 PB LEVEL
RV102 PB EQ
LV101 PB EQ
Q8
BUFFER
CH-1 DOLBY SIG (X)
12-7 AU-89A
CH-1 DOLBY DET (X)
13-4 AU-89A
IC1
OUT PUT AMP
Q1
MUTE
Q2
MUTE
T3
T4
CN1017 CH-1 LINE OUT
CN1018 CH-2 LINE OUT
CP-112A
CLT IN (X)
15-1 SV-93A
17-4 AU-89A
L: SERVO LOCK ON
15-3 SV-93A
17-6 AU-89A
H:DOLBY LED ON
16-2 KY-105A
17-2 AU-89A
CH-2 MONITOR (X)
6-4 KY-105A
CH-2 HEAD POHNE (X)
6-10 KY-105A
CH-2 LINE (X)
10-5
DOLBY SIG (Y)
Q208
MUTE
H: AUDIO MUTE
IC51 (2/2)
HEAD PHONES AMP
Q55
MUTE
Q251
MUTE
IC101 (2/2)
CH-2 PB AMP
RV302 CH-2 PB EQ
TP303
C316, 317 R322, 325
H. P. F
IC102 (2/2)
CH-2 PB AMP
Q306
H: SEARCH X2
RV304 PB LEVEL
RV303
LV302
RV303, LV302 PB EQ
Q207
BUFF
CH-2 DOLBY SIG (X)
12-2 AU-89A
CH-2 DOLBY DET (X)
13-6 AU-89A
Q403
H: AUDIO MUTE
AU-82A
VP-9000

AUDIO SYSTEM
BLOCK DIAGRAM

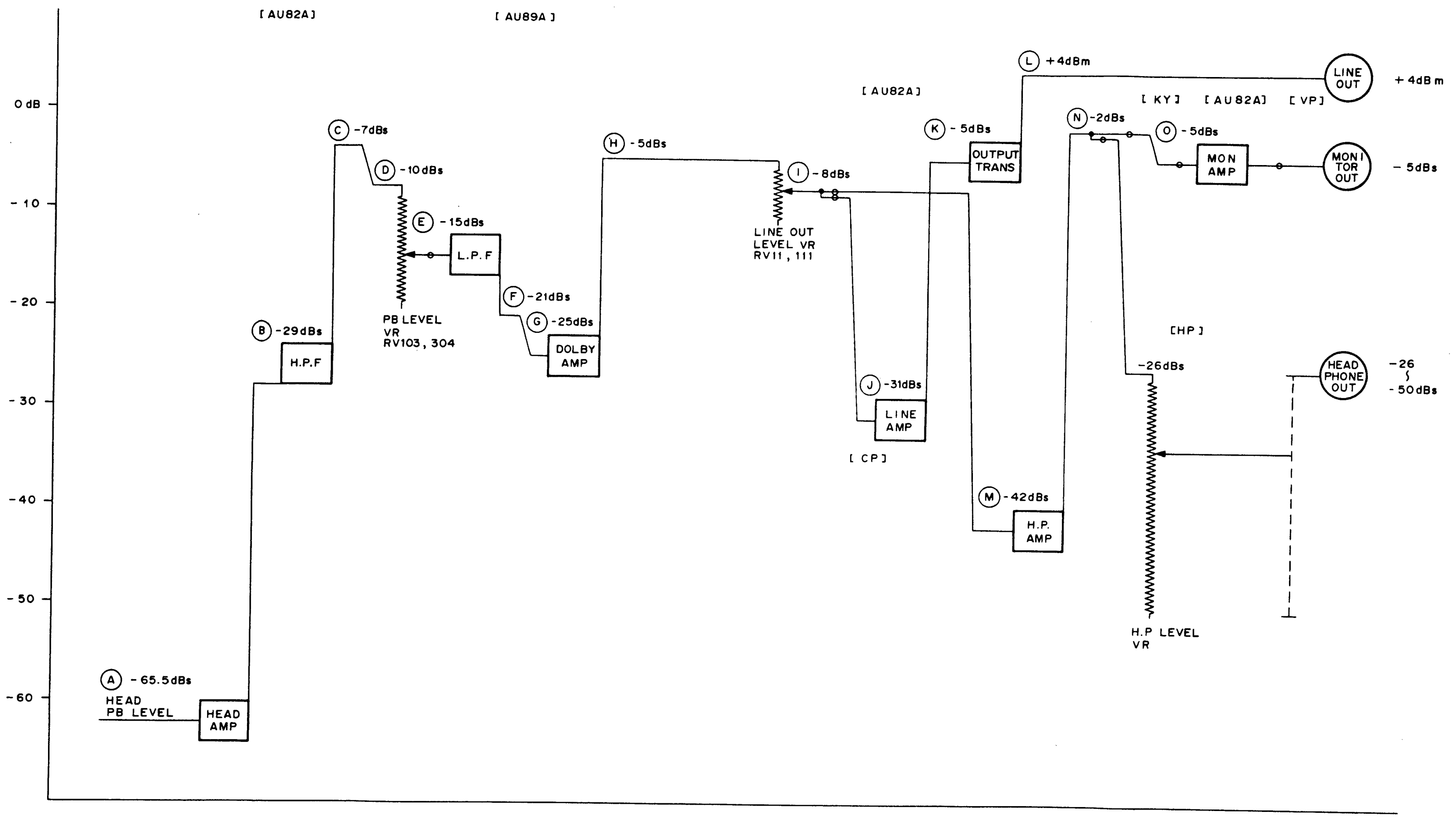

AU-82A
252-2
CH-1 DOLBY SIG IN 1
Ⓔ
CP1
LPF
Ⓕ
TP11
Ⓖ
ATT
IC1 (1/4)
PB
LINE
CAL
MAIN OP AMP
MODE CONTROL
TP13
IC1 (3/4)
HIGH LEVEL STAGE DETECTOR
LOW LEVEL STAGE DETECTOR
SPECTRAL SKEW AMP
Ⓗ
Ⓘ
RV11 CH-1 DOLBY LEVEL
CH-1 DOLBY SIG OUT
252-1
252-7
CH-2 DOLBY SIG IN 1
CP101
TP111
R115
IC1 (2/4)
TP113
IC1 (4/4)
RV111 CH-2 DOLBY LEVEL
CH-2 DOLBY SIG OUT
252-8
253-5
CH-1 DOLBY DET IN
IC302 (1/4)
CH-1 DOLBY AMP
L. P. F
IC302 (2/4)
CH-1 PB PILOT AMP
RV313 CH-1 PB PILOT TONE
TP312
IC303
PHASE DET
IC304
IC305
IC306
TP314
TP315
Q306
Q307
INTEGRATOR DIFF AMP
RV315 CH-1 DC BALANCE
TP316
TP317
Q308
Q309
RV316 CH-2 DC BALANCE
TP318
IC302 (3/4)
LEVEL COMPARATOR
IC302 (4/4)
BUFFER
RV317 DOLBY DET LEVEL
253-3
CH-2 DOLBY DET IN
IC301 (3/4)
CH-2 DOLBY AMP
IC301 (4/4)
CH-2 PB PILOT AMP
RV314 CH-2 PB PILOT TONE
TP313
251-3
CTL IN
Q201
Q208
TP211
IC201 (1/2)
IC202 (1/2)
IC202 (2/2)
IC301 (2/4)
PHASE SHIFTER
RV312 PB PILOT TONE PHASE
IC301 (1/4)
TP311
251-1
L:SERVO LOCK ON
Q204
MUTE
IC201 (2/2)
DOLBY DET MEMORY
IC203, 204, 205
DOLBY CONTROL
205-4
204-1
204-6, 12
IC205
Q206
H:DOLBY LED ON
251-5
253-6
H:SP
TP212
AU-89A
VP-9000


0dB
-10
-20
-30
-40
-50
-60
Ⓑ
Ⓐ -65.5dBs
HEAD PB LEVEL
HEAD AMP


IC1 (3/4)
H LEVEL STAGE DETECTOR
LOW LEVEL STAGE DETECTOR
21
18
15
10
SPECTRAL SKEW AMP
H
I
RV11 CH-1 DOLBY LEVEL
CH-1 DOLBY SIG OUT
252-1
AU-82A
IC1 (4/4)
H LEVEL TAGE DETECTOR
LOW LEVEL STAGE DETECTOR
22
25
28
33
SPECTRAL SKEW AMP
RV111 CH-2 DOLBY LEVEL
CH-2 DOLBY SIG OUT
252-8
AU-82A
TP315
Q307
RV315 CH-1 DC BALANCE
TP317
Q309
RV316 -2 DC BALANCE
TP318
IC302 (3/4)
LEVEL COMPARATOR
3
2
1
5
IC302 (4/4)
BUFFER
7
RV317 DOLBY DET LEVEL
Q206
H:DOLBY LED ON
251-5
AU-82A

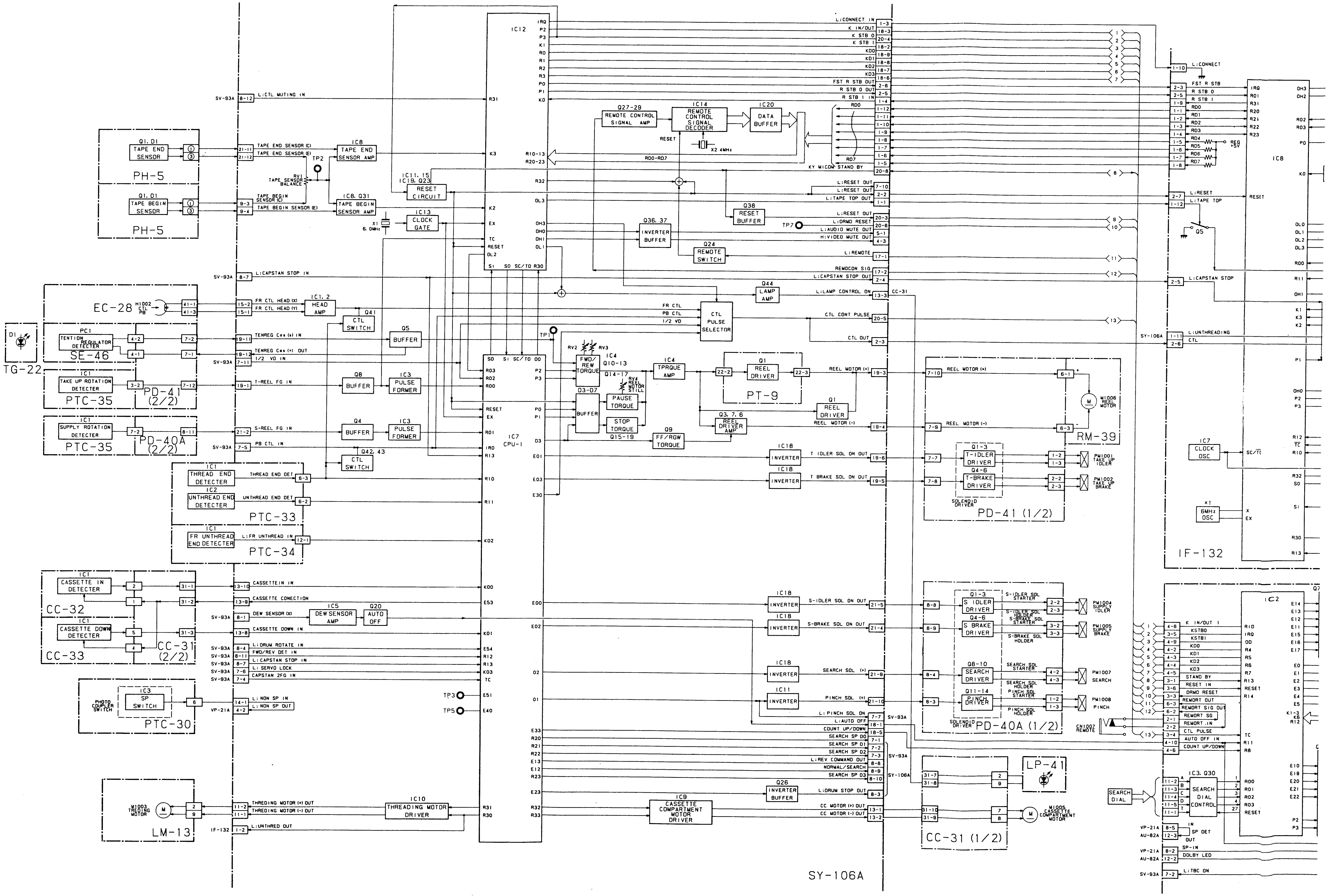
AU-89A
VP-9000

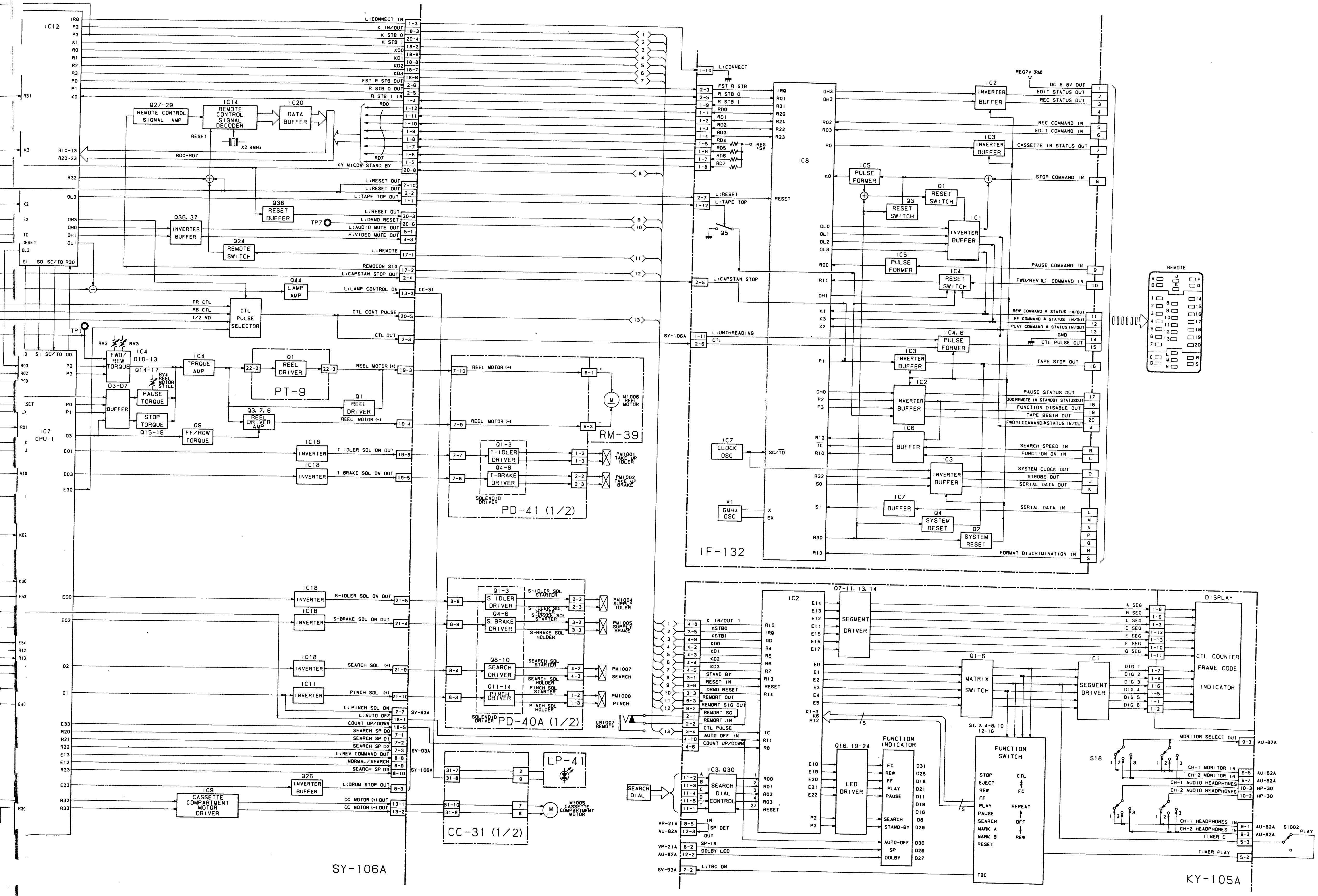
Audio Level Diagram PB系



SYSTEM CONTROL BLOCK DIAGRAM

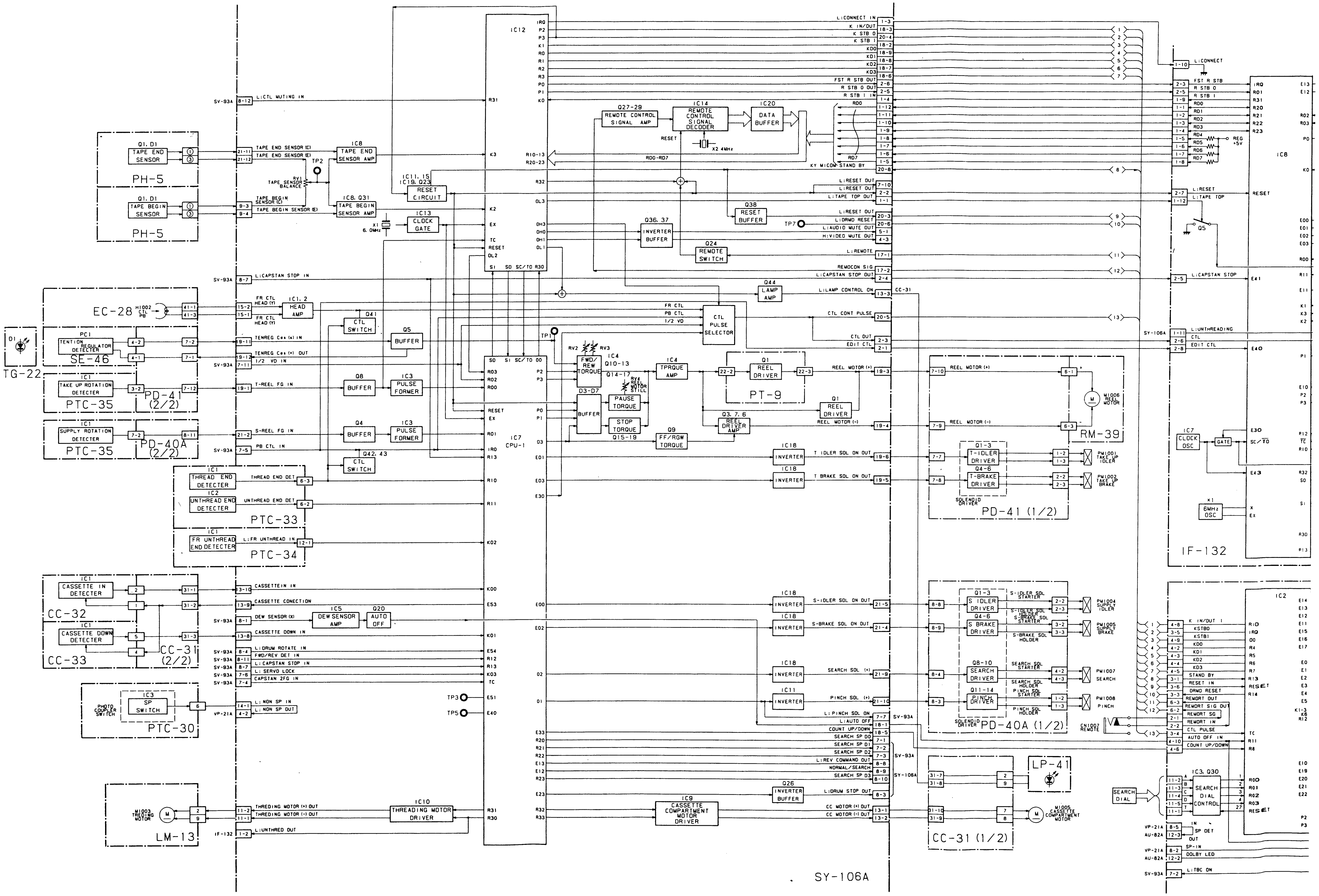
UC;S/N 10001 thru 11700
J; S/N 10001 thru 10200

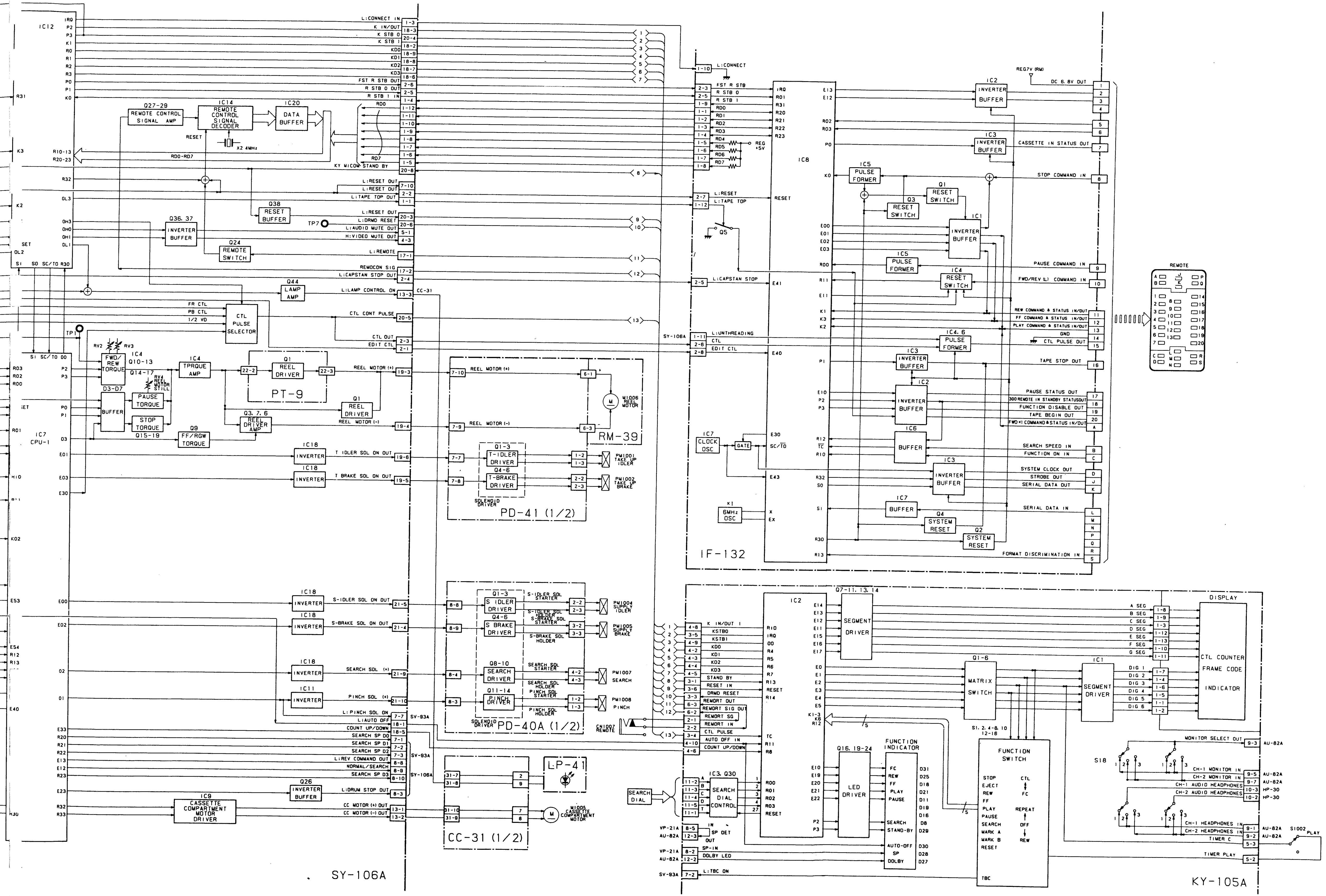

IC12
IC7 CPU-1
IC8
IC2
PH-5
TAPE END SENSOR
TAPE BEGIN SENSOR
TAPE END SENSOR AMP
TAPE BEGIN SENSOR AMP
TP1
TP2
TP3
TP5
TP7
RESET CIRCUIT
CLOCK GATE
REMOTE CONTROL SIGNAL AMP
REMOTE CONTROL SIGNAL DECODER
DATA BUFFER
INVERTER BUFFER
REMOTE SWITCH
RESET BUFFER
LAMP AMP
CTL PULSE SELECTOR
EC-28
TG-22
SE-46
TENTION REGULATOR DETECTER
PTC-35
PD-41 (2/2)
PD-40A (2/2)
TAKE UP ROTATION DETECTER
SUPPLY ROTATION DETECTER
HEAD AMP
CTL SWITCH
BUFFER
PULSE FORMER
FWD/REW TORQUE
PAUSE TORQUE
STOP TORQUE
TPRQUE AMP
REEL DRIVER
PT-9
REEL DRIVER AMP
FF/RGW TORQUE
RM-39
REEL MOTOR
THREAD END DETECTER
UNTHREAD END DETECTER
PTC-33
FR UNTHREAD END DETECTER
PTC-34
CASSETTE IN DETECTER
CASSETTE DOWN DETECTER
CC-32
CC-33
CC-31 (2/2)
DEW SENSOR AMP
AUTO OFF
PHOTO COUPLER SWITCH
SP SWITCH
PTC-30
LM-13
THREADING MOTOR
THREADING MOTOR DRIVER
CASSETTE COMPARTMENT MOTOR DRIVER
INVERTER
T-IDLER DRIVER
T-BRAKE DRIVER
PD-41 (1/2)
S IDLER DRIVER
S BRAKE DRIVER
SEARCH DRIVER
PINCH DRIVER
PD-40A (1/2)
LP-41
CC-31 (1/2)
CASSETTE COMPARTMENT MOTOR
SY-106A
IF-132
CLOCK OSC
6MHz OSC
SEARCH DIAL
SEARCH DIAL CONTROL
SV-93A
VP-21A
AU-82A
CN1002 REMOTE


IC12
IC7
CPU-1
IC14
REMOTE CONTROL SIGNAL DECODER
Q27-29
REMOTE CONTROL SIGNAL AMP
IC20
DATA BUFFER
X2 4MHz
KY MICOM STAND BY
Q38
RESET BUFFER
TP7
Q36, 37
INVERTER BUFFER
Q24
REMOTE SWITCH
Q44
LAMP AMP
CTL PULSE SELECTOR
FR CTL
PB CTL
1/2 VD
TP1
FWD/REW TORQUE
IC4
Q10-13
Q14-17
D3-D7
BUFFER
PAUSE TORQUE
STOP TORQUE
Q15-19
Q9
FF/REW TORQUE
TORQUE AMP
Q1
REEL DRIVER
PT-9
Q3, 7, 6
REEL DRIVER AMP
REEL MOTOR (+)
REEL MOTOR (-)
M1006
REEL MOTOR
RM-39
IC18
INVERTER
T IDLER SOL ON OUT
T BRAKE SOL ON OUT
Q1-3
T-IDLER DRIVER
Q4-6
T-BRAKE DRIVER
SOLENOID DRIVER
PM1001
TAKE UP IDLER
PM1002
TAKE UP BRAKE
PD-41 (1/2)
S-IDLER SOL ON OUT
S-BRAKE SOL ON OUT
SEARCH SOL (+)
PINCH SOL (+)
IC11
S IDLER DRIVER
S BRAKE DRIVER
Q8-10
SEARCH DRIVER
Q11-14
PINCH DRIVER
PM1004
SUPPLY IDLER
PM1005
SUPPLY BRAKE
PM1007
SEARCH
PM1008
PINCH
PD-40A (1/2)
CN1007
REMOTE
Q26
INVERTER BUFFER
L:DRUM STOP OUT
IC9
CASSETTE COMPARTMENT MOTOR DRIVER
CC MOTOR (+) OUT
CC MOTOR (-) OUT
M1005
CASSETTE COMPARTMENT MOTOR
CC-31 (1/2)
LP-41
SY-106A
IF-132
IC8
IC7
CLOCK OSC
6MHz OSC
Q5
IC2
INVERTER BUFFER
IC3
IC5
PULSE FORMER
Q1
RESET SWITCH
Q3
RESET SWITCH
IC1
IC4
IC4, 6
IC6
BUFFER
Q4
SYSTEM RESET
Q2
SYSTEM RESET
REG7V (RM)
DC 6.8V OUT
EDIT STATUS OUT
REC STATUS OUT
REC COMMAND IN
EDIT COMMAND IN
CASSETTE IN STATUS OUT
STOP COMMAND IN
PAUSE COMMAND IN
FWD/REV Q.I COMMAND IN
REW COMMAND & STATUS IN/OUT
FF COMMAND & STATUS IN/OUT
PLAY COMMAND & STATUS IN/OUT
GND
CTL PULSE OUT
TAPE STOP OUT
PAUSE STATUS OUT
300 REMOTE IN STANDBY STATUS OUT
FUNCTION DISABLE OUT
TAPE BEGIN OUT
FWD×1 COMMAND & STATUS IN/OUT
SEARCH SPEED IN
FUNCTION ON IN
SYSTEM CLOCK OUT
STROBE OUT
SERIAL DATA OUT
SERIAL DATA IN
FORMAT DISCRIMINATION IN
REMOTE
IC2
Q7-11, 13, 14
SEGMENT DRIVER
DISPLAY
CTL COUNTER
FRAME CODE
INDICATOR
Q1-6
MATRIX SWITCH
IC1
SEGMENT DRIVER
IC3, Q30
SEARCH DIAL CONTROL
SEARCH DIAL
Q16, 19-24
LED DRIVER
FUNCTION INDICATOR
FUNCTION SWITCH
S1, 2, 4-8, 10 12-16
S18
MONITOR SELECT OUT
CH-1 MONITOR IN
CH-2 MONITOR IN
CH-1 AUDIO HEADPHONES
CH-2 AUDIO HEADPHONES
CH-1 HEADPHONES IN
CH-2 HEADPHONES IN
TIMER C
TIMER PLAY
S1002
PLAY
AU-82A
HP-30
VP-21A
SV-93A
SP DET
DOLBY LED
L:TBC ON
KY-105A

SYSTEM CONTROL BLOCK DIAGRAM

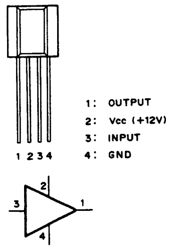
UC; S/N 11701 and higher
J; S/N 10201 and higher


IC12
IC14
REMOTE CONTROL SIGNAL DECODER
IC20
DATA BUFFER
Q27-29
REMOTE CONTROL SIGNAL AMP
PH-5
TAPE END SENSOR
TAPE BEGIN SENSOR
IC8
TAPE END SENSOR AMP
IC8, Q31
TAPE BEGIN SENSOR AMP
IC11, 15
IC19, Q23
RESET CIRCUIT
IC13
CLOCK GATE
Q36, 37
INVERTER BUFFER
Q38
RESET BUFFER
Q24
REMOTE SWITCH
Q44
LAMP AMP
CTL PULSE SELECTOR
EC-28
SE-46
TG-22
PTC-35
PD-41 (2/2)
PD-40A (2/2)
IC1, 2
HEAD AMP
Q41
CTL SWITCH
Q5
BUFFER
Q8
BUFFER
IC3
PULSE FORMER
Q4
BUFFER
Q42, 43
CTL SWITCH
THREAD END DETECTER
UNTHREAD END DETECTER
PTC-33
FR UNTHREAD END DETECTER
PTC-34
CASSETTE IN DETECTER
CASSETTE DOWN DETECTER
CC-32
CC-33
CC-31 (2/2)
IC5
DEW SENSOR AMP
Q20
AUTO OFF
PHOTO COUPLER SWITCH
SP SWITCH
PTC-30
LM-13
M1003 THREADING MOTOR
IC10
THREADING MOTOR DRIVER
IC7
CPU-1
FWD/REW TORQUE
Q10-13
D3-D7
BUFFER
PAUSE TORQUE
STOP TORQUE
Q14-17
Q15-19
IC4
TPRQUE AMP
Q9
FF/REW TORQUE
Q1
REEL DRIVER
PT-9
Q3, 7, 6
REEL DRIVER AMP
IC18
INVERTER
IC11
IC9
CASSETTE COMPARTMENT MOTOR DRIVER
Q26
INVERTER BUFFER
RM-39
M1006 REEL MOTOR
Q1-3
T-IDLER DRIVER
Q4-6
T-BRAKE DRIVER
SOLENOID DRIVER
PD-41 (1/2)
PM1001 TAKE UP IDLER
PM1002 TAKE UP BRAKE
S IDLER DRIVER
S BRAKE DRIVER
Q8-10
SEARCH DRIVER
Q11-14
PINCH DRIVER
PD-40A (1/2)
PM1004 SUPPLY IDLER
PM1005 SUPPLY BRAKE
PM1007 SEARCH
PM1008 PINCH
LP-41
CC-31 (1/2)
M1005 CASSETTE COMPARTMENT MOTOR
IC7
CLOCK OSC
GATE
X1
6MHz OSC
IF-132
IC8
IC2
IC3, Q30
SEARCH DIAL CONTROL
SEARCH DIAL
CN1007 REMOTE
SY-106A
TP1
TP2
TP3
TP5
TP7

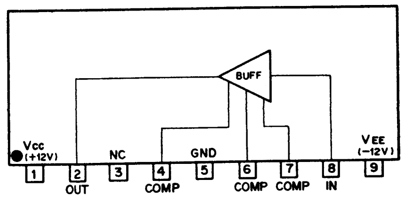


IC12
IC7 CPU-1
Q27-29 REMOTE CONTROL SIGNAL AMP
IC14 REMOTE CONTROL SIGNAL DECODER
IC20 DATA BUFFER
X2 4MHz
Q38 RESET BUFFER
Q36, 37 INVERTER BUFFER
Q24 REMOTE SWITCH
Q44 LAMP AMP
CTL PULSE SELECTOR
TP7
TP1
IC4 FWD/REW TORQUE
Q10-13
D3-D7 BUFFER
PAUSE TORQUE
STOP TORQUE
Q15-19
Q9 FF/RGW TORQUE
IC4 TPRQUE AMP
Q1 REEL DRIVER
PT-9
Q1 REEL DRIVER
Q3, 7, 6 REEL DRIVER AMP
IC18 INVERTER
IC11 INVERTER
Q26 INVERTER BUFFER
IC9 CASSETTE COMPARTMENT MOTOR DRIVER
RM-39
M1006 REEL MOTOR
Q1-3 T-IDLER DRIVER
Q4-6 T-BRAKE DRIVER
SOLENOID DRIVER
PD-41 (1/2)
PM1001 TAKE UP IDLER
PM1002 TAKE UP BRAKE
Q1-3 S IDLER DRIVER
Q4-6 S BRAKE DRIVER
Q8-10 SEARCH DRIVER
Q11-14 PINCH DRIVER
PD-40A (1/2)
PM1004 SUPPLY IDLER
PM1005 SUPPLY BRAKE
PM1007 SEARCH
PM1008 PINCH
CN1002 REMOTE
LP-41
CC-31 (1/2)
M1005 CASSETTE COMPARTMENT MOTOR
SY-106A
IC8
IC2 INVERTER BUFFER
IC3 INVERTER BUFFER
IC5 PULSE FORMER
Q3 RESET SWITCH
Q1 RESET SWITCH
IC1 INVERTER BUFFER
IC5 PULSE FORMER
IC4 RESET SWITCH
IC4, 6 PULSE FORMER
IC3 INVERTER BUFFER
IC2 INVERTER BUFFER
IC6 BUFFER
IC3 INVERTER BUFFER
IC7 BUFFER
Q4 SYSTEM RESET
Q2 SYSTEM RESET
IC7 CLOCK OSC
GATE
X1 6MHz OSC
Q5
IF-132
REMOTE
REG7V (RM)
DC 6.8V OUT
CASSETTE IN STATUS OUT
STOP COMMAND IN
PAUSE COMMAND IN
FWD/REV (L) COMMAND IN
TAPE STOP OUT
SEARCH SPEED IN
FUNCTION ON IN
SYSTEM CLOCK OUT
STROBE OUT
SERIAL DATA OUT
SERIAL DATA IN
FORMAT DISCRIMINATION IN
IC2
Q7-11, 13, 14 SEGMENT DRIVER
Q1-6 MATRIX SWITCH
IC1 SEGMENT DRIVER
DISPLAY
CTL COUNTER FRAME CODE INDICATOR
IC3, Q30 SEARCH DIAL CONTROL
SEARCH DIAL
Q16, 19-24 LED DRIVER
FUNCTION INDICATOR
FUNCTION SWITCH
S1, 2, 4-8, 10 12-18
S18
S1002 PLAY
MONITOR SELECT OUT
CH-1 MONITOR IN
CH-2 MONITOR IN
CH-1 AUDIO HEADPHONES
CH-2 AUDIO HEADPHONES
CH-1 HEADPHONES IN
CH-2 HEADPHONES IN
TIMER C
TIMER PLAY
KY-105A

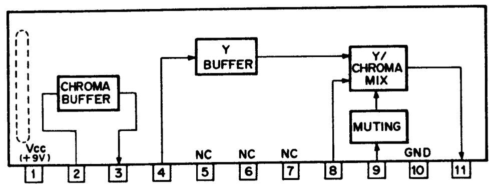
AN607P (MATSUSHITA)
AN608P (MATSUSHITA)
WIDE BAND AMPLIFIER
— PRINTED SIDE VIEW —


1: OUTPUT
2: Vcc (+12V)
3: INPUT
4: GND
1 2 3 4

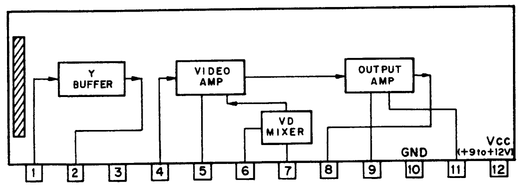
BX366A (SONY)
BX366AL (ROHM)
VIDEO BUFFER
— SIDE VIEW —


BUFF
Vcc (+12V)
NC
GND
VEE (−12V)
OUT
COMP
COMP COMP
IN

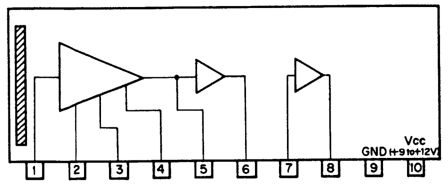
BX373A (SONY)
BX373AL (ROHM)
MIX AMP
— REAR VIEW —


Y BUFFER
Y/ CHROMA MIX
CHROMA BUFFER
MUTING
Vcc (+9V)
NC NC NC
GND

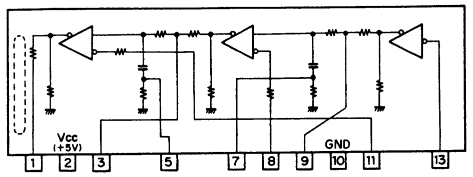
BX388 (SONY)
BX388L (ROHM)
VIDEO AMP/VD MIXER
— PRINTED SIDE —


Y BUFFER
VIDEO AMP
OUTPUT AMP
VD MIXER
GND
Vcc (+9 to +12V)

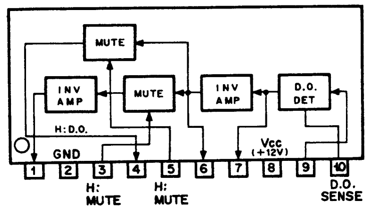
BX389 (SONY)
BX389L (ROHM)
VIDEO AMPLIFIER
— PRINTED SIDE —


Vcc
GND (+9 to +12V)

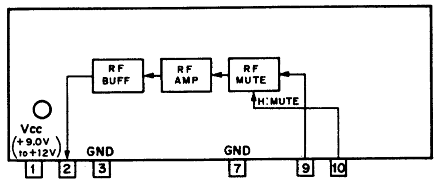
BX1140 (SONY)
BX1140L (ROHM)
HF AMP
— REAR VIEW —



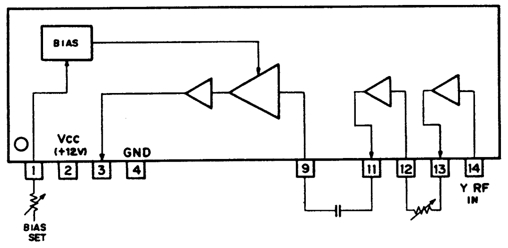
BX1248 (SONY)
BX1248L (ROHM)
DROPOUT DETECTOR
— PRINTED SIDE VIEW —


MUTE
INV AMP
MUTE
INV AMP
D.O. DET
H: D.O.
GND
Vcc (+12V)
H: MUTE
H: MUTE
D.O. SENSE

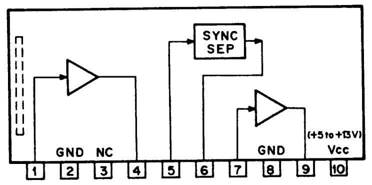
BX1265 (SONY)
BX1265L (ROHM)
VIDEO HEAD AMPLIFIER/MUTING
— PRINTED SIDE VIEW —


RF BUFF
RF AMP
RF MUTE
H: MUTE
Vcc (+9.0V to +12V)
GND
GND

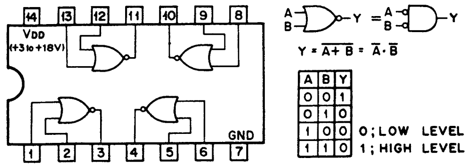
BX1257 (SONY)
BX1257L (ROHM)
Y-RF SIDE BAND EQUALIZER
— PRINTED SIDE VIEW —


BIAS
Vcc (+12V)
GND
Y RF IN
BIAS SET

BX3915A (SONY)
SYNC SEPARATOR
— PRINTED SIDE —

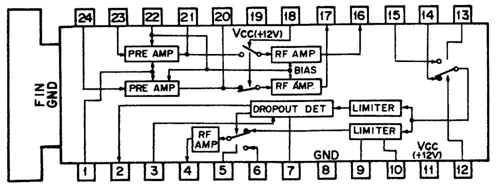

SYNC SEP
GND NC
GND
Vcc (+5 to +13V)

CD4001AE/BE (RCA)
TC4001BF (TOSHIBA) FLAT PACKAGE
TC4001UBP (TOSHIBA)
C-MOS 2-INPUT NOR GATE
— TOP VIEW —

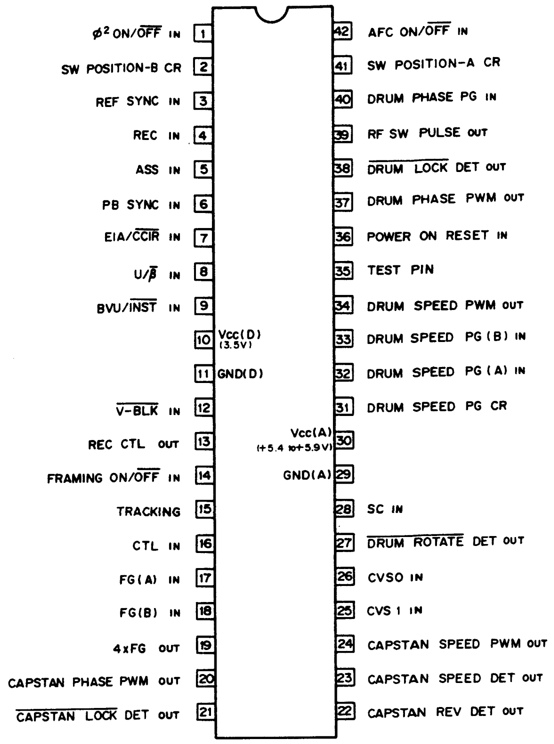

VDD (+3 to +18V)
GND
Y = $\overline{A+B}$ = $\overline{A}\cdot\overline{B}$
0; LOW LEVEL
1; HIGH LEVEL

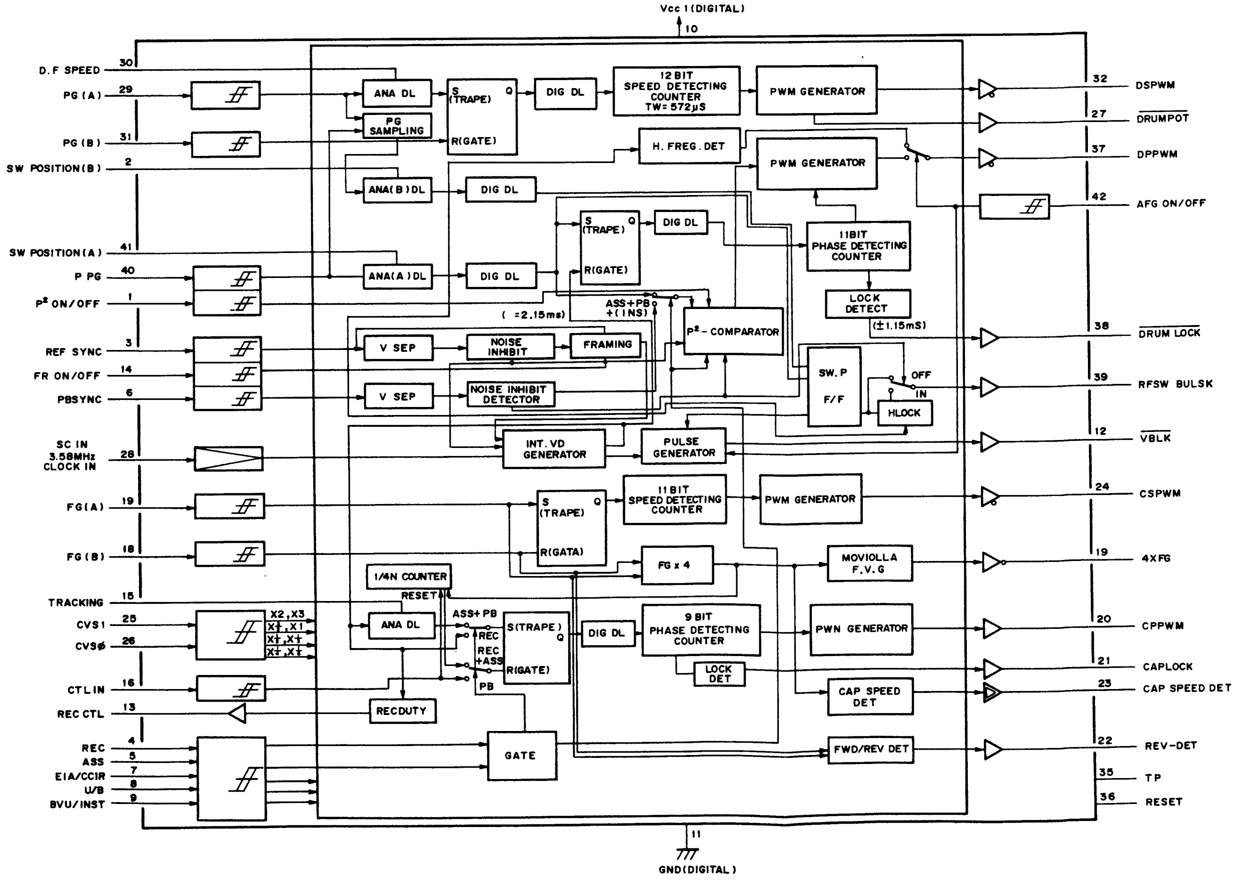
A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

CX134A (SONY)
HEAD AMP/DROPOUT COMPENSATOR
— TOP VIEW —

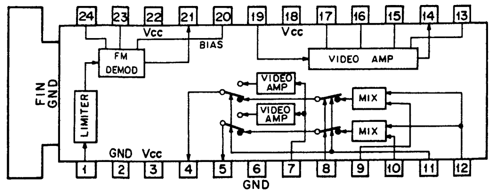

FIN GND
Vcc (+12V)
PRE AMP
RF AMP
BIAS
PRE AMP
RF AMP
DROPOUT DET
LIMITER
LIMITER
RF AMP
GND
Vcc (+12V)

CX194B (SONY)
DRUM/CAPSTAN PWM SERVO
— TOP VIEW —

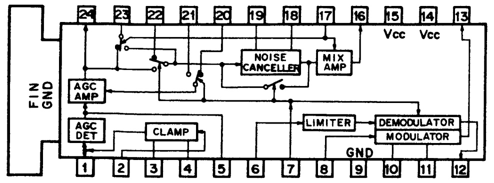

φ² ON/OFF IN 1
SW POSITION-B CR 2
REF SYNC IN 3
REC IN 4
ASS IN 5
PB SYNC IN 6
EIA/CCIR IN 7
U/β IN 8
BVU/INST IN 9
10 Vcc(D) 13.5V
11 GND(D)
V-BLK IN 12
REC CTL OUT 13
FRAMING ON/OFF IN 14
TRACKING 15
CTL IN 16
FG(A) IN 17
FG(B) IN 18
4xFG OUT 19
CAPSTAN PHASE PWM OUT 20
CAPSTAN LOCK DET OUT 21
42 AFC ON/OFF IN
41 SW POSITION-A CR
40 DRUM PHASE PG IN
39 RF SW PULSE OUT
38 DRUM LOCK DET OUT
37 DRUM PHASE PWM OUT
36 POWER ON RESET IN
35 TEST PIN
34 DRUM SPEED PWM OUT
33 DRUM SPEED PG (B) IN
32 DRUM SPEED PG (A) IN
31 DRUM SPEED PG CR
Vcc(A) (+5.4 to +5.9V) 30
GND(A) 29
28 SC IN
27 DRUM ROTATE DET OUT
26 CVSO IN
25 CVS 1 IN
24 CAPSTAN SPEED PWM OUT
23 CAPSTAN SPEED DET OUT
22 CAPSTAN REV DET OUT


Vcc 1 (DIGITAL)
10
D.F SPEED 30
PG (A) 29
PG (B) 31
SW POSITION (B) 2
SW POSITION (A) 41
P PG 40
P² ON/OFF 1
REF SYNC 3
FR ON/OFF 14
PBSYNC 6
SC IN 3.58MHz CLOCK IN 28
FG (A) 19
FG (B) 18
TRACKING 15
CVS1 25
CVSφ 26
CTL IN 16
REC CTL 13
REC 4
ASS 5
EIA/CCIR 7
U/B 8
BVU/INST 9
ANA DL
S (TRAPE) Q
PG SAMPLING
R (GATE)
DIG DL
12 BIT SPEED DETECTING COUNTER TW= 572μS
PWM GENERATOR
H. FREQ. DET
PWM GENERATOR
ANA (B) DL
DIG DL
S (TRAPE) Q
DIG DL
11 BIT PHASE DETECTING COUNTER
ANA (A) DL
DIG DL
R (GATE)
LOCK DETECT (±1.15mS)
(=2.15ms)
ASS+PB +(INS)
P² - COMPARATOR
V SEP
NOISE INHIBIT
FRAMING
V SEP
NOISE INHIBIT DETECTOR
SW. P F/F
OFF
IN
HLOCK
INT. VD GENERATOR
PULSE GENERATOR
S (TRAPE) Q
11 BIT SPEED DETECTING COUNTER
PWM GENERATOR
R (GATA)
FG x 4
MOVIOLLA F.V.G
1/4N COUNTER
RESET
ANA DL
ASS+PB
REC
REC +ASS
PB
S (TRAPE)
R (GATE)
DIG DL
9 BIT PHASE DETECTING COUNTER
LOCK DET
PWN GENERATOR
CAP SPEED DET
RECDUTY
GATE
FWD/REV DET
32 DSPWM
27 DRUMPOT
37 DPPWM
42 AFC ON/OFF
38 DRUM LOCK
39 RFSW BULSK
12 VBLK
24 CSPWM
19 4xFG
20 CPPWM
21 CAPLOCK
23 CAP SPEED DET
22 REV-DET
35 TP
36 RESET
11
GND (DIGITAL)

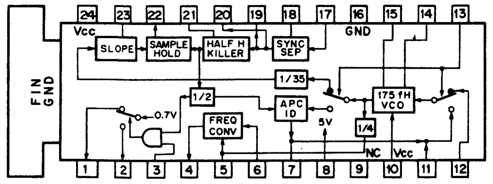
CX135 (SONY)
— TOP VIEW —


Vcc
BIAS
Vcc
FM DEMOD
VIDEO AMP
VIDEO AMP
VIDEO AMP
MIX
MIX
LIMITER
FIN GND
GND Vcc
GND

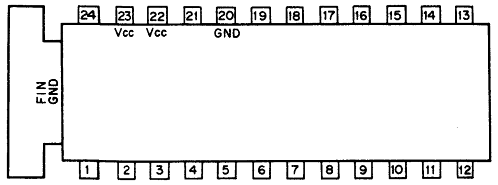
CX187 (SONY)
LUMINANCE SIGNAL PROCESSER
—TOP VIEW—

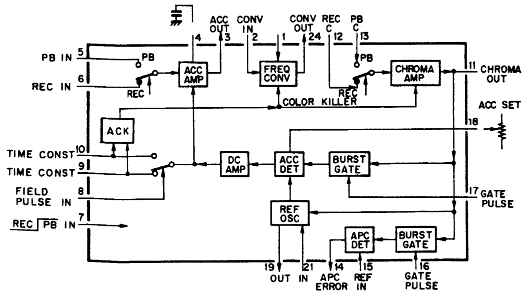

Vcc Vcc
NOISE CANCELLER
MIX AMP
AGC AMP
AGC DET
CLAMP
LIMITER
DEMODULATOR
MODULATOR
GND
FIN GND

CX 805 (SONY)
—TOP VIEW—

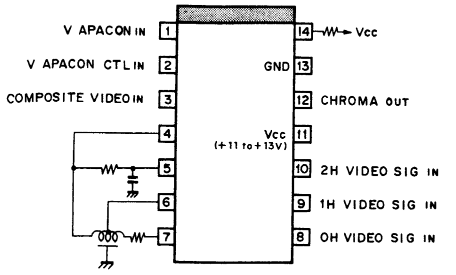

Vcc
GND
SLOPE
SAMPLE HOLD
HALF H KILLER
SYNC SEP
1/35
1/2
APC ID
175 fH VCO
0.7V
FREQ CONV
5V
1/4
NC
Vcc
FIN GND

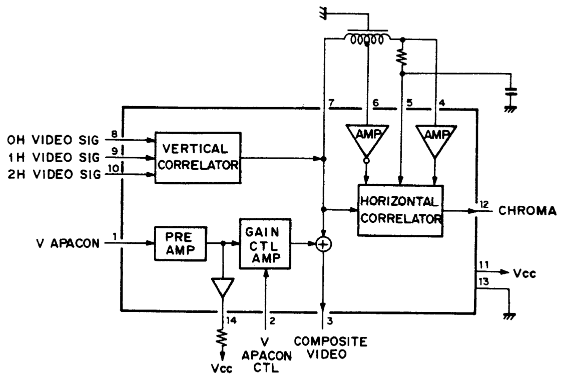
CX872 (SONY)
— TOP VIEW —


Vcc Vcc
GND
FIN GND

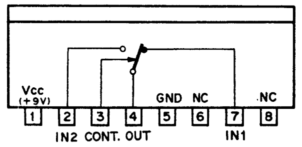

ACC OUT
CONV IN
CONV OUT
REC C
PB C
PB IN
REC IN
PB
REC
ACC AMP
FREQ CONV
PB
REF
CHROMA AMP
COLOR KILLER
CHROMA OUT
ACC SET
ACK
TIME CONST
TIME CONST
FIELD PULSE IN
REC / PB IN
DC AMP
ACC DET
BURST GATE
GATE PULSE
REF OSC
APC DET
BURST GATE
OUT IN
APC ERROR
REF IN
GATE PULSE

CX22013 (SONY)
DYNAMIC COMB FILTER
— TOP VIEW —


V APACON IN
V APACON CTL IN
COMPOSITE VIDEO IN
Vcc
GND
CHROMA OUT
Vcc (+11 to +13V)
2H VIDEO SIG IN
1H VIDEO SIG IN
0H VIDEO SIG IN


0H VIDEO SIG
1H VIDEO SIG
2H VIDEO SIG
VERTICAL CORRELATOR
AMP
AMP
HORIZONTAL CORRELATOR
CHROMA
V APACON
PRE AMP
GAIN CTL AMP
Vcc
V APACON CTL
COMPOSITE VIDEO
Vcc

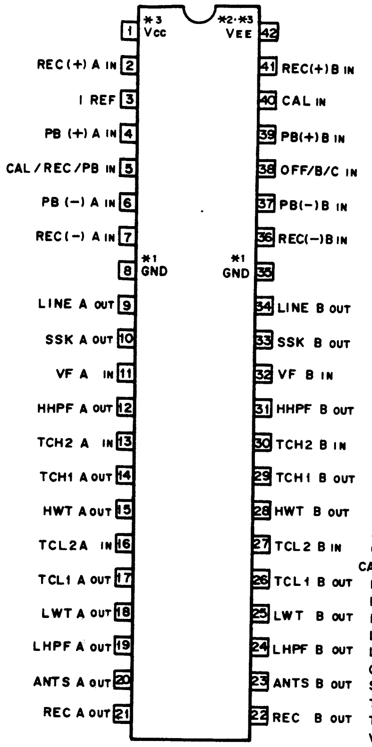
CX20061 (SONY)
ANALOG SWITCH
— SIDE VIEW —

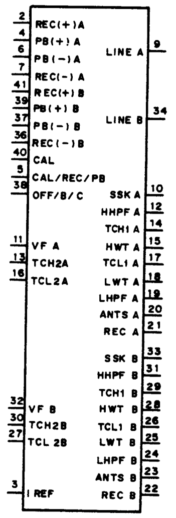

Vcc (+9V)
GND
NC
NC
IN2
CONT.
OUT
IN1

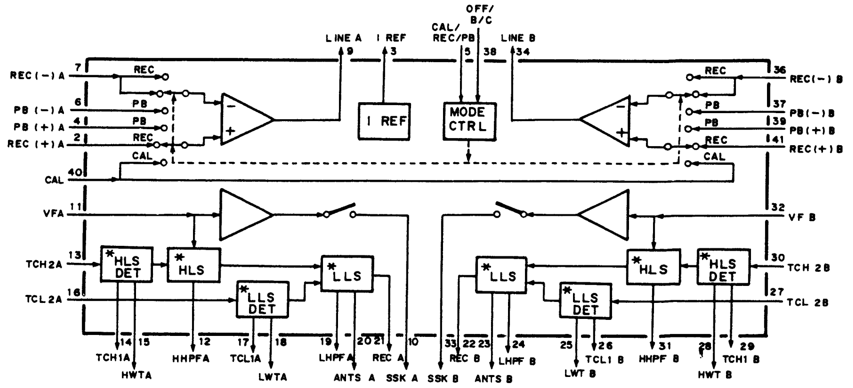
CONT.	SW
0	⊸
1	⊸

0; LOW LEVEL
1; HIGH LEVEL

CX20188 (SONY)
DOLBY B TYPE AND C TYPE, NOISE REDUCTION SYSTEM
— TOP VIEW —


*3 Vcc
*2·*3 VEE
REC(+) A IN
I REF
PB (+) A IN
CAL / REC / PB IN
PB (−) A IN
REC(−) A IN
*1 GND
*1 GND
LINE A OUT
SSK A OUT
VF A IN
HHPF A OUT
TCH2 A IN
TCH1 A OUT
HWT A OUT
TCL2A IN
TCL1 A OUT
LWT A OUT
LHPF A OUT
ANTS A OUT
REC A OUT
REC(+)B IN
CAL IN
PB(+)B IN
OFF/B/C IN
PB(−)B IN
REC(−)B IN
LINE B OUT
SSK B OUT
VF B IN
HHPF B OUT
TCH2 B IN
TCH1 B OUT
HWT B OUT
TCL2 B IN
TCL1 B OUT
LWT B OUT
LHPF B OUT
ANTS B OUT
REC B OUT

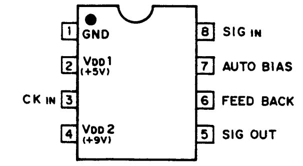

REC(+)A
PB(+)A
PB(−)A
LINE A
REC(−)A
REC(+)B
PB(+)B
PB(−)B
LINE B
REC(−)B
CAL
CAL/REC/PB
OFF/B/C
SSK A
HHPF A
TCH1 A
HWT A
VF A
TCH2A
TCL1 A
TCL2A
LWT A
LHPF A
ANTS A
REC A
SSK B
HHPF B
TCH1 B
HWT B
VF B
TCH2B
TCL1 B
TCL 2B
LWT B
LHPF B
ANTS B
I REF
REC B

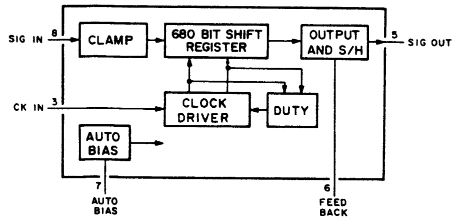

OFF/ B/C
CAL/ REC/PB
LINE A
I REF
LINE B
REC(−) A
PB (−) A
PB (+) A
REC (+) A
REC
PB
PB
REC
CAL
I REF
MODE CTRL
REC(−) B
PB(−) B
PB(+) B
REC(+) B
CAL
VFA
VF B
TCH2A
TCL2A
*HLS DET
*HLS
*LLS
*LLS
*LLS
*LLS DET
*HLS
*HLS DET
TCH 2B
TCL 2B
TCH1A
HWTA
HHPFA
TCL1A
LWTA
LHPFA
REC A
ANTS A
SSK A
SSK B
ANTS B
REC B
LHPF B
LWT B
TCL1 B
HHPF B
HWT B
TCH1 B

ANTS ; ANTI SATURATION
CAL ; CALIBRATION
CAL/REC/PB ; CALIBRATION/REC/ PB SELECT
HHPF ; *HLS HIGH PASS FILTER
HWT ; *HLS WAITING
I REF ; REFERENCE SOURCE CURRENT
LHPF ; *LLS HIGH PASS FILTER
LWT ; *LLS WAITING
OFF/B/C ; DOLBY NR OFF/B-TYPE/C-TYPE SELECT
SSK ; SPECTRAL SKEWING SWITCH
TCH ; *HLS DETECTOR TIME CONSTANT
TCL ; *LLS DETECTOR TIME CONSTANT
VF ; ENCODE INPUT
*HLS ; HIGH LEVEL STAGE
*LLS ; LOW LEVEL STAGE

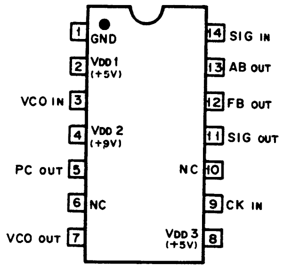
*1 ; ONE POWER→Vcc/2. TWO POWER→GND
*2 ; ONE POWER→GND. TWO POWER→VEE
*3 ; Vcc − VEE : +8 to +21V

CXL5001P (SONY)
C-MOS CCD FOR NTSC 1H DELAY LINE
— TOP VIEW —

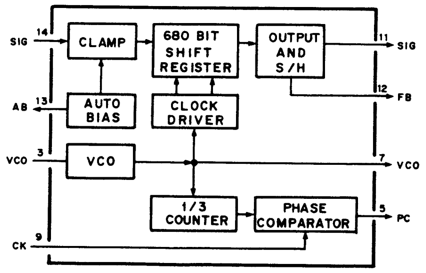

GND
VDD1 (+5V)
CK IN
VDD2 (+9V)
SIG IN
AUTO BIAS
FEED BACK
SIG OUT


SIG IN
CLAMP
680 BIT SHIFT REGISTER
OUTPUT AND S/H
SIG OUT
CK IN
CLOCK DRIVER
DUTY
AUTO BIAS
AUTO BIAS
FEED BACK

CXL5005P (SONY)
C-MOS CCD 1H DELAY LINE FOR NTSC
— TOP VIEW —

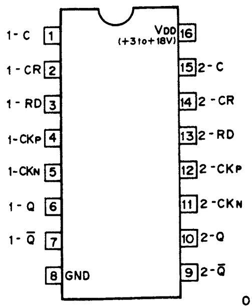

GND
VDD1 (+5V)
VCO IN
VDD 2 (+9V)
PC OUT
NC
VCO OUT
SIG IN
AB OUT
FB OUT
SIG OUT
NC
CK IN
VDD3 (+5V)

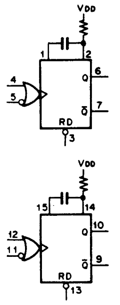
AB ; AUTO BIAS DC
FB ; FEEDBACK DC
PC ; PHASE COMPARATOR
SIG ; SIGNAL


SIG
CLAMP
680 BIT SHIFT REGISTER
OUTPUT AND S/H
SIG
AB
AUTO BIAS
CLOCK DRIVER
FB
VCO
VCO
VCO
1/3 COUNTER
PHASE COMPARATOR
PC
CK

IC IC

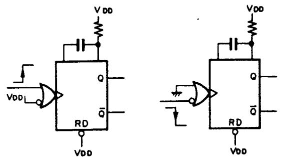
HD14538BP (HITACHI)
C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE
MONOSTABLE MULTIVIBRATOR
— TOP VIEW —


1-C 1
1-CR 2
1-RD 3
1-CKP 4
1-CKN 5
1-Q 6
1-Q̄ 7
8 GND
VDD (+3 to +18V) 16
15 2-C
14 2-CR
13 2-RD
12 2-CKP
11 2-CKN
10 2-Q
9 2-Q̄

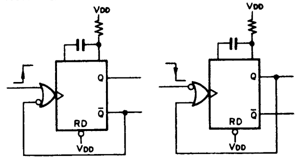

VDD
1
2
4
5
Q 6
Q̄ 7
RD
3
VDD
15
14
12
11
Q 10
Q̄ 9
RD
13

RETRIGGERABLE M.M.V

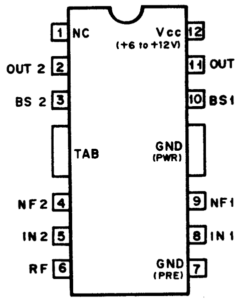
OUTPUT PULSE WIDTH=CR


VDD
VDD
Q
Q̄
RD
VDD
VDD
Q
Q̄
RD
VDD

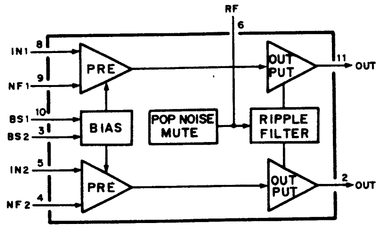
NON-RETRIGGERABLE M.M.V


VDD
Q
Q̄
RD
VDD
VDD
Q
Q̄
RD
VDD

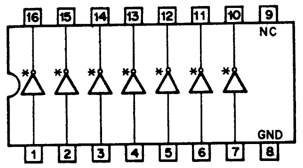
LA4550 (SANYO)
2CH AF POWER AMP
— TOP VIEW —


1 NC
OUT 2 2
BS 2 3
TAB
NF2 4
IN2 5
RF 6
Vcc (+6 to +12V) 12
11 OUT1
10 BS1
GND (PWR)
9 NF1
8 IN1
GND (PRE) 7

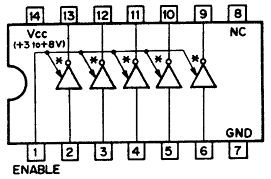
BS1,BS2 ;BOOTSTRAP CAPACITOR
IN1,IN2 ;INPUTS
NF1,NF2 ;NEGATIVE FEEDBACK CONTROL
OUT1,OUT2;OUTPUTS
RF ;RIPPLE FILTER


RF
6
IN1 8
NF1 9
BS1 10
BS2 3
IN2 5
NF2 4
PRE
BIAS
POP NOISE MUTE
RIPPLE FILTER
OUTPUT
PRE
OUTPUT
11 OUT 1
2 OUT 2

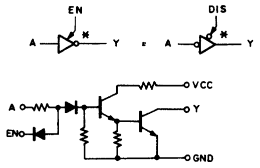
M54517P (MITSUBISHI)
INVERTER WITH OPEN-COLLECTOR
(DARLINGTON-CONNECTED TRANSISTOR ARRAY)
— TOP VIEW —


16
15
14
13
12
11
10
9
NC
GND
1
2
3
4
5
6
7
8

M54529AP (MITSUBISHI)
TRANSISTOR ARRAY
— TOP VIEW —


14
13
12
11
10
9
8
Vcc (+3 to +8V)
NC
GND
1
2
3
4
5
6
7

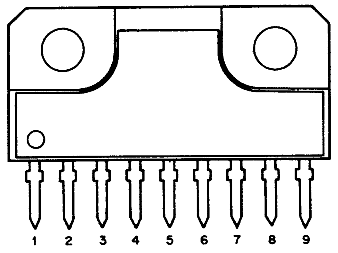
ENABLE

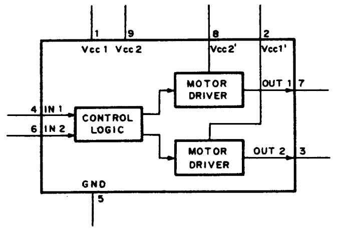

EN
A
Y
=
DIS
A
Y
A
VCC
Y
EN
GND

A	EN	Y
0	1	1
1	1	0
X	0	1

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
* ; OPEN COLLECTOR

M54543L (MITSUBISHI)
BI-DIRECTIONAL MOTOR DRIVER
— SIDE VIEW —

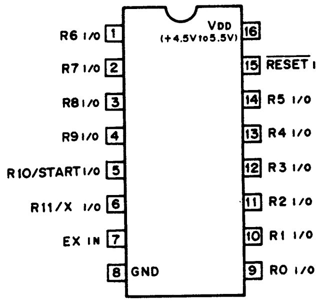


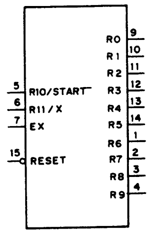

1
9
8
2
Vcc 1
Vcc 2
Vcc2'
Vcc1'
4 IN 1
6 IN 2
CONTROL LOGIC
MOTOR DRIVER
MOTOR DRIVER
OUT 1 7
OUT 2 3
GND
5

IN		OUT		MODE
1	2	1	2	
0	0	Z	Z	NO OPERATION
1	0	1	0	ROTATION
0	1	0	1	REVERSE ROTATION
1	1	0	0	BRAKE

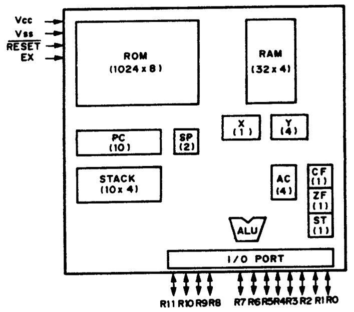
0 : LOW LEVEL
1 : HIGH LEVEL
Z : HIGH IMPEDANCE

MB88201-173N (FUJITSU)
C-MOS 4 BIT MICROCOMPUTER
— TOP VIEW —

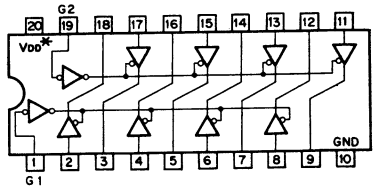

R6 I/O 1
R7 I/O 2
R8 I/O 3
R9 I/O 4
R10/START I/O 5
R11/X I/O 6
EX IN 7
8 GND
VDD (+4.5V to 5.5V) 16
15 RESET IN
14 R5 I/O
13 R4 I/O
12 R3 I/O
11 R2 I/O
10 R1 I/O
9 R0 I/O


5 R10/START
6 R11/X
7 EX
15 RESET
R0 9
R1 10
R2 11
R3 12
R4 13
R5 14
R6 1
R7 2
R8 3
R9 4

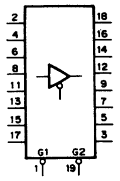
EX ; EXTERNAL X'TAL IN
R0-R11 ; I/O PORT(R) IN/OUT
RESET ; RESET IN
START ; STANDBY RELEASE IN
R11/X ; EXT CLOCK IN/INT CLOCK OUT


Vcc
Vss
RESET
EX
ROM (1024 x 8)
RAM (32 x 4)
PC (10)
SP (2)
X (1)
Y (4)
STACK (10 x 4)
AC (4)
CF (1)
ZF (1)
ST (1)
ALU
I/O PORT
R11 R10 R9 R8
R7 R6 R5 R4 R3 R2 R1 R0

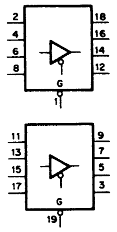
MC74HC244N (MOTOROLA)
SN74HC244N (TI)
TC74HC244P (TOSHIBA)
C-MOS BUS BUFFER WITH 3-STATE OUTPUT
— TOP VIEW —

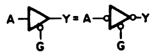

G2
20
19
18
17
16
15
14
13
12
11
VDD*
GND
1
2
3
4
5
6
7
8
9
10
G1

* VDD HC ;+2 to +6V
HCT;+5V


2
4
6
8
11
13
15
17
18
16
14
12
9
7
5
3
G1
G2
1
19

OR

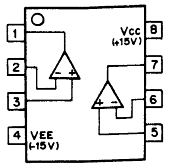

2
4
6
8
18
16
14
12
G
1
11
13
15
17
9
7
5
3
G
19



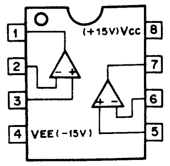
G	A	Y
0	0	0
0	1	1
1	X	HI-Z

0; LOW LEVEL
1; HIGH LEVEL
X; DONT CARE
HI-Z; HIGH IMPEDANCE

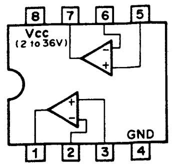
NJM2043D-D (JRC)
OPERATIONAL AMPLIFIER
— TOP VIEW —


1
2
3
4 VEE (-15V)
Vcc (+15V) 8
7
6
5

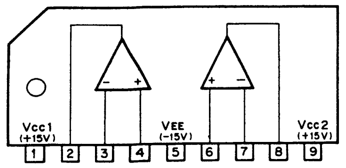
NJM4558D (JRC)
NJM4558D-D (JRC)
uPC4558C (NEC)
OPERATIONAL AMPLIFIER
— TOP VIEW —


1
2
3
4 VEE(-15V)
(+15V)Vcc 8
7
6
5

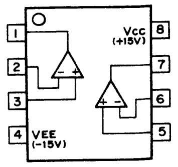
NJM2903D (JRC)
uPC393C (NEC)
VOLTAGE COMPARATOR
— TOP VIEW —


8
7
6
5
Vcc (2 to 36V)
GND
1
2
3
4

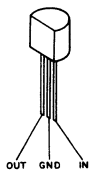
NJM4558S (JRC)
HIGH PERFORMANCE DUAL OPERATIONAL AMPLIFIER
— SIDE VIEW —


Vcc1 (+15V)
VEE (-15V)
Vcc2 (+15V)
1
2
3
4
5
6
7
8
9

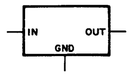
NJM4562D-D (JRC)
OPERATIONAL AMPLIFIER
— TOP VIEW —


1
2
3
4 VEE (-15V)
Vcc (+15V) 8
7
6
5

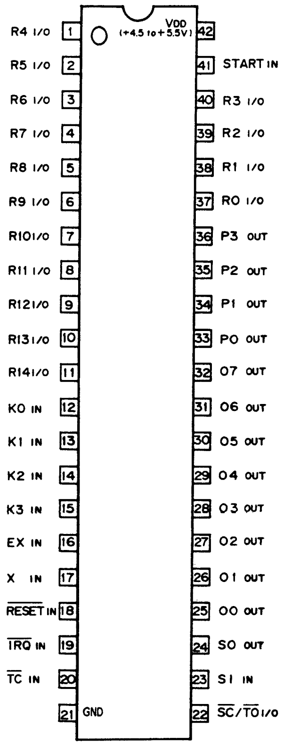
NJM78L ? ?A (NEC)
POSITIVE VOLTAGE REGULATOR (100mA)

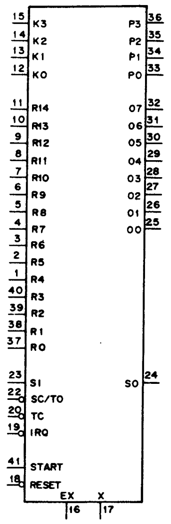


OUTPUT VOLTAGE	NJM78L??A	uA78L??ACL	uA78L??AWV	uPC78L??J	AN78L??
+5V	NJM78L05A	uA78L05ACL	uA78L05AWV	uPC78L05J	AN78L05
+9V	NJM78L09A	uA78L09ACL	uA78L09AWV	---------	AN78L09



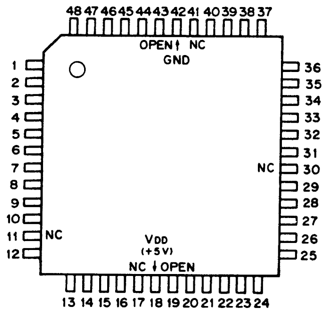
MB88505P (FUJITSU)
C-MOS 4-BIT ONE-CHIP MICROCOMPUTER
— TOP VIEW —

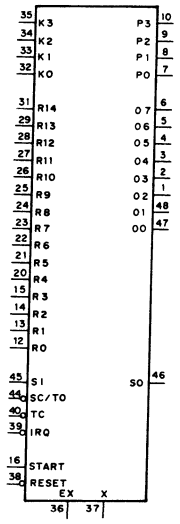

R4 I/O 1
R5 I/O 2
R6 I/O 3
R7 I/O 4
R8 I/O 5
R9 I/O 6
R10 I/O 7
R11 I/O 8
R12 I/O 9
R13 I/O 10
R14 I/O 11
K0 IN 12
K1 IN 13
K2 IN 14
K3 IN 15
EX IN 16
X IN 17
RESET IN 18
IRQ IN 19
TC IN 20
21 GND
42 VDD (+4.5 to +5.5V)
41 START IN
40 R3 I/O
39 R2 I/O
38 R1 I/O
37 R0 I/O
36 P3 OUT
35 P2 OUT
34 P1 OUT
33 P0 OUT
32 O7 OUT
31 O6 OUT
30 O5 OUT
29 O4 OUT
28 O3 OUT
27 O2 OUT
26 O1 OUT
25 O0 OUT
24 SO OUT
23 SI IN
22 SC/TO I/O


K3 K2 K1 K0
R14 R13 R12 R11 R10 R9 R8 R7 R6 R5 R4 R3 R2 R1 R0
SI SC/TO TC IRQ START RESET
P3 P2 P1 P0
O7 O6 O5 O4 O3 O2 O1 O0
SO
EX X
16 17

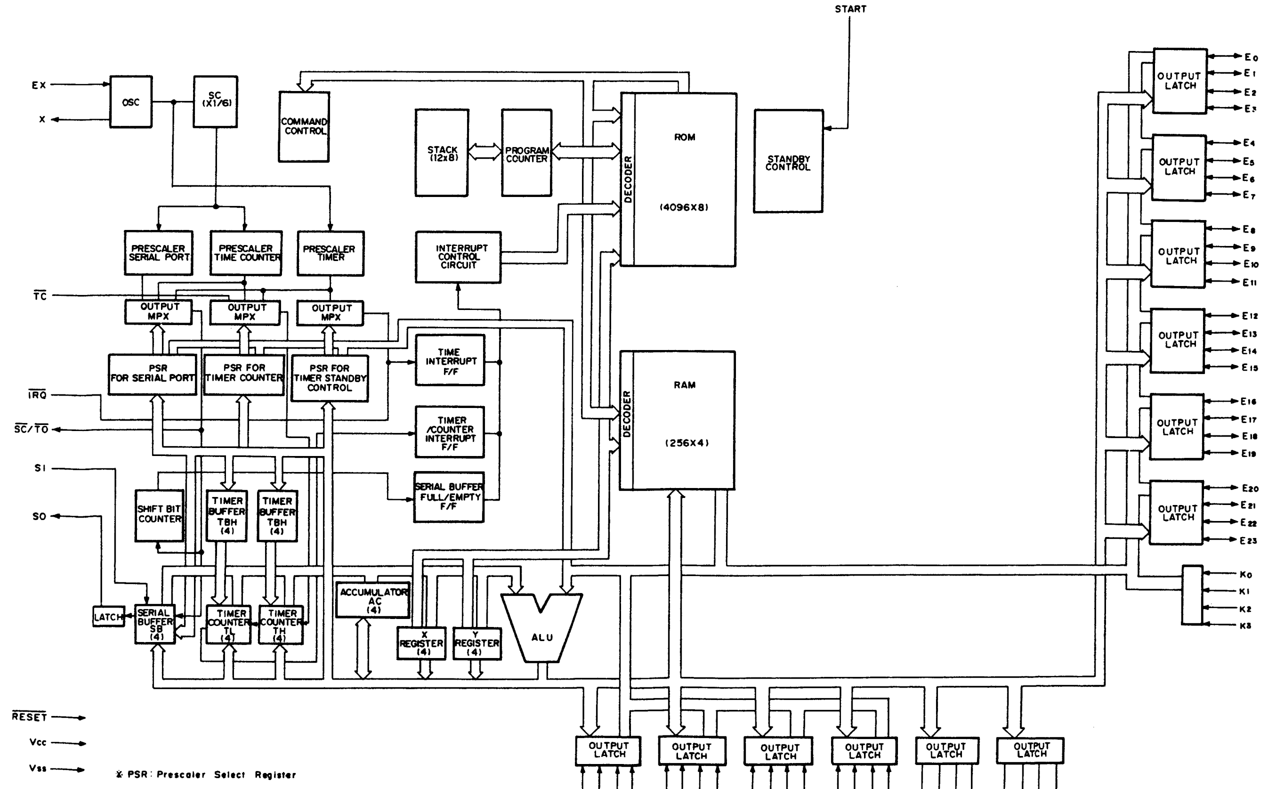
EX ; EXTERNAL CLOCK IN
$\overline{\text{IRQ}}$; INTERRUPT REQUEST IN
KO-K3 ; 4-BIT PARALLEL IN
OO-O7 ; 4-BIT PARALLEL OUT
PO-P3 ; 4-BIT PARALLEL OUT
RO-R14 ; DATA IN/OUT
$\overline{\text{RESET}}$; RESET IN
$\overline{\text{SC}}/\overline{\text{TO}}$; SHIFT CLOCK IN/INT TIMING OUT
SI ; SERIAL DATA IN
SO ; SERIAL DATA OUT
START ; STANDBY OFF IN
$\overline{\text{TC}}$; EXTERNAL CLOCK IN FOR COUNTER
X ; CLOCK OUT

MB88505PF (FUJITSU) FLAT PACKAGE
C-MOS 4-BIT ONE-CHIP MICROCOMPUTER
— TOP VIEW —


48 47 46 45 44 43 42 41 40 39 38 37
OPEN ↑ NC
GND
1 2 3 4 5 6 7 8 9 10 11 12
NC
NC
VDD (+5V)
NC ↑ OPEN
13 14 15 16 17 18 19 20 21 22 23 24
36 35 34 33 32 31 30 29 28 27 26 25

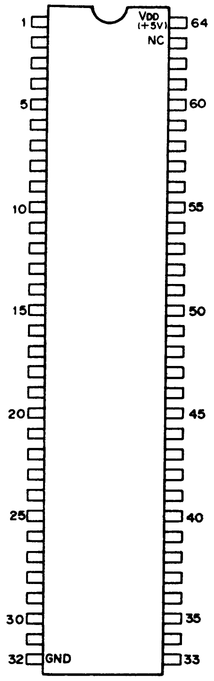

K3 K2 K1 K0
R14 R13 R12 R11 R10 R9 R8 R7 R6 R5 R4 R3 R2 R1 R0
SI SC/TO TC IRQ START RESET
P3 P2 P1 P0
O7 O6 O5 O4 O3 O2 O1 O0
SO
EX X
36 37

EX ; EXTERNAL CLOCK IN
$\overline{\text{IRQ}}$; INTERRUPT REQUEST IN
KO-K3 ; 4-BIT PARALLEL IN
OO-O7 ; 4-BIT PARALLEL OUT
PO-P3 ; 4-BIT PARALLEL OUT
RO-R14 ; DATA IN/OUT
$\overline{\text{RESET}}$; RESET IN
$\overline{\text{SC}}/\overline{\text{TO}}$; SHIFT CLOCK IN/INT TIMING OUT
SI ; SERIAL DATA IN
SO ; SERIAL DATA OUT
START ; STANDBY OFF IN
$\overline{\text{TC}}$; EXTERNAL CLOCK IN FOR COUNTER
X ; CLOCK OUT

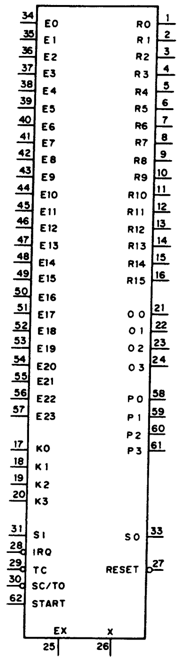

START
EX
X
OSC
SC (X1/6)
COMMAND CONTROL
STACK (12x8)
PROGRAM COUNTER
DECODER
ROM (4096X8)
STANDBY CONTROL
INTERRUPT CONTROL CIRCUIT
PRESCALER SERIAL PORT
PRESCALER TIME COUNTER
PRESCALER TIMER
TC
OUTPUT MPX
OUTPUT MPX
OUTPUT MPX
PSR FOR SERIAL PORT
PSR FOR TIMER COUNTER
PSR FOR TIMER STANDBY CONTROL
TIME INTERRUPT F/F
TIMER /COUNTER INTERRUPT F/F
SERIAL BUFFER FULL/EMPTY F/F
IRQ
SC/TO
SI
SO
SHIFT BIT COUNTER
TIMER BUFFER TBH (4)
TIMER BUFFER TBH (4)
LATCH
SERIAL BUFFER SB (4)
TIMER COUNTER TL (4)
TIMER COUNTER TH (4)
ACCUMULATOR AC (4)
X REGISTER (4)
Y REGISTER (4)
ALU
DECODER
RAM (256X4)
OUTPUT LATCH
E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15 E16 E17 E18 E19 E20 E21 E22 E23
K0 K1 K2 K3
R15 R14 R13 R12
R11 R10 R9 R8
R7 R6 R5 R4
R3 R2 R1 R0
O3 O2 O1 O0
P3 P2 P1 P0
RESET
Vcc
Vss

※ PSR: Prescaler Select Register

MB88525P (FUJITSU)
C-MOS 4-BIT ONE-CHIP MICROCOMPUTER
— TOP VIEW —

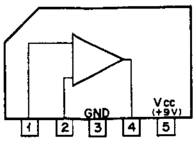

1
5
10
15
20
25
30
32 GND
64 VDD (+5V)
NC
60
55
50
45
40
35
33

PIN NO.	IN	OUT	SYMBOL	PIN NO.	IN	OUT	SYMBOL
1	○	○	R0	33		○	SO
2	○	○	R1	34	○	○	E0
3	○	○	R2	35	○	○	E1
4	○	○	R3	36	○	○	E2
5	○	○	R4	37	○	○	E3
6	○	○	R5	38	○	○	E4
7	○	○	R6	39	○	○	E5
8	○	○	R7	40	○	○	E6
9	○	○	R8	41	○	○	E7
10	○	○	R9	42	○	○	E8
11	○	○	R10	43	○	○	E9
12	○	○	R11	44	○	○	E10
13	○	○	R12	45	○	○	E11
14	○	○	R13	46	○	○	E12
15	○	○	R14	47	○	○	E13
16	○	○	R15	48	○	○	E14
17	○		K0	49	○	○	E15
18	○		K1	50	○	○	E16
19	○		K2	51	○	○	E17
20	○		K3	52	○	○	E18
21		○	O0	53	○	○	E19
22		○	O1	54	○	○	E20
23		○	O2	55	○	○	E21
24		○	O3	56	○	○	E22
25	○		EX	57	○	○	E23
26		○	X	58		○	P0
27	○	○	$\overline{\text{RESET}}$	59		○	P1
28	○		$\overline{\text{IRQ}}$	60		○	P2
29	○		$\overline{\text{TC}}$	61		○	P3
30	○	○	$\overline{\text{SC}}/\overline{\text{TO}}$	62	○		START
31	○		SI	63	—	—	——
32			GND	64			VDD

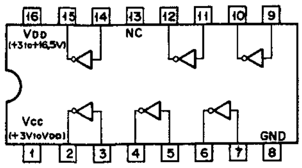

E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15 E16 E17 E18 E19 E20 E21 E22 E23
K0 K1 K2 K3
SI IRQ TC SC/TO START
R0 R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15
O0 O1 O2 O3
P0 P1 P2 P3
SO
RESET
EX X
25 26

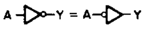
EO-E23 ; I/O PORT (E) IN/OUT
EX ; EXTERNAL CLOCK IN
$\overline{\text{IRQ}}$; EXTERNAL INTERRUPT REQUEST IN
KO-K3 ; INPUT PORT(K) IN
OO-O3 ; OUTPUT PORT(O) OUT
PO-P3 ; OUTPUT PORT(P) OUT
RO-R15 ; I/O PORT (R) IN/OUT
$\overline{\text{RESET}}$; RESET IN
$\overline{\text{SC}}/\overline{\text{TO}}$; SHIFT CLOCK IN/TIMING OUT
SI ; SERIAL DATA IN
START ; STANDBY RELEASE IN
SO ; SERAL DATA OUT
$\overline{\text{TC}}$; EXTERNAL CLOCK IN
X ; CLOCK OUT

TA7060AP (TOSHIBA)
LINEAR AMP
— SIDE VIEW —


GND
Vcc
(+9V)
1
2
3
4
5

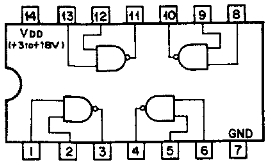
TC4009UBP (TOSHIBA)
C-MOS INVERTING TYPE BUFFER/CONVERTER (TO TTL LEVEL)
— TOP VIEW —

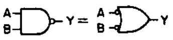

16
15
14
13
12
11
10
9
VDD
(+3to+16.5V)
NC
Vcc
(+3VtoVDD)
GND
1
2
3
4
5
6
7
8



A	Y
0	1
1	0

TC4011BP (TOSHIBA)
C-MOS 2-INPUT NAND GATE
— TOP VIEW —


14
13
12
11
10
9
8
VDD
(+3to+18V)
GND
1
2
3
4
5
6
7

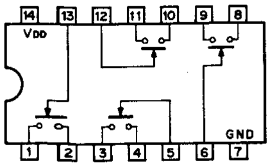


Y = $\overline{A \cdot B}$ = $\overline{A}+\overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0;LOW LEVEL
1;HIGH LEVEL

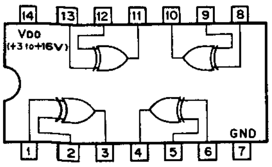
TC4016BPHB (TOSHIBA)
C-MOS BILATERAL SWITCH
— TOP VIEW —

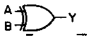

14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7

CONT IN	SW
0	OFF
1	ON

0; LOW LEVEL
1; HIGH LEVEL

TC4030BP (TOSHIBA)
TC4030BPHB (TOSHIBA)
uPD4030BC (NEC)
C-MOS EXCLUSIVE OR GATE
— TOP VIEW —


14
13
12
11
10
9
8
VDD
(+3to+16V)
GND
1
2
3
4
5
6
7

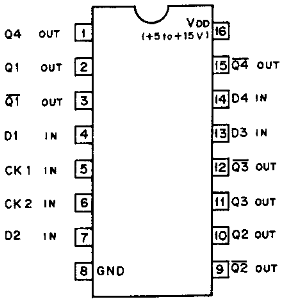


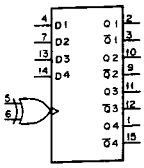
Y = $\overline{A}\cdot B + A\cdot\overline{B}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0;LOW LEVEL
1;HIGH LEVEL

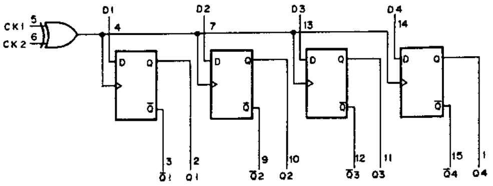
TC4042BP (TOSHIBA)
C-MOS D-TYPE LATCH
— TOP VIEW —


Q4 OUT 1
Q1 OUT 2
$\overline{Q1}$ OUT 3
D1 IN 4
CK1 IN 5
CK2 IN 6
D2 IN 7
8 GND
VDD (+5to+15V) 16
15 $\overline{Q4}$ OUT
14 D4 IN
13 D3 IN
12 $\overline{Q3}$ OUT
11 Q3 OUT
10 Q2 OUT
9 $\overline{Q2}$ OUT

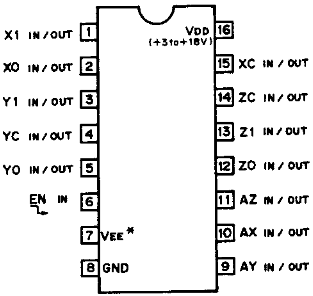

4 D1
7 D2
13 D3
14 D4
5
6
Q1 2
$\overline{Q}$1 3
Q2 10
$\overline{Q}$2 9
Q3 11
$\overline{Q}$3 12
Q4 1
$\overline{Q}$4 15

FUNCTION TABLE

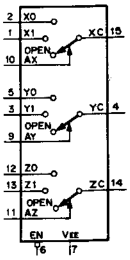
CK1	CK2	Q / $\overline{Q}$
0	0	PASS DATA
0	1	LATCH DATA
1	0	LATCH DATA
1	1	PASS DATA


CK1
CK2
5
6
D1
4
D2
7
D3
13
D4
14
D
Q
$\overline{Q}$
3
2
9
10
12
11
15
1
$\overline{Q}$1
Q1
$\overline{Q}$2
Q2
$\overline{Q}$3
Q3
$\overline{Q}$4
Q4

TC4053BPHB (TOSHIBA)
uPD4053BC (NEC)
C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER
— TOP VIEW —


X1 IN/OUT 1
XO IN/OUT 2
Y1 IN/OUT 3
YC IN/OUT 4
YO IN/OUT 5
EN IN 6
7 VEE*
8 GND
VDD (+3to+18V) 16
15 XC IN/OUT
14 ZC IN/OUT
13 Z1 IN/OUT
12 ZO IN/OUT
11 AZ IN/OUT
10 AX IN/OUT
9 AY IN/OUT

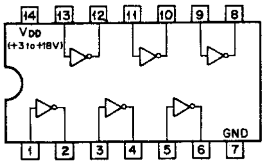
VEE*; VDD−VEE: +3 to +18 V

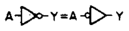

2 XO
1 X1
OPEN
10 AX
XC 15
5 YO
3 Y1
OPEN
9 AY
YC 4
12 ZO
13 Z1
OPEN
11 AZ
ZC 14
EN
VEE
6
7

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

CONT. INPUTS		ON CHANNEL
EN	A (X,Y,Z,)	
0	0	0
0	1	1
1	X	OPEN

TC4069UBF (TOSHIBA) FLAT PACKAGE
TC4069UBP (TOSHIBA)
C-MOS INVERTER
— TOP VIEW —


14
13
12
11
10
9
8
VDD
(+3to+18V)
GND
1
2
3
4
5
6
7

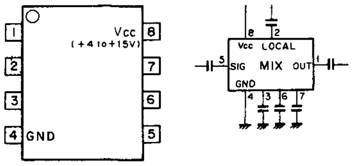


Y = $\overline{A}$

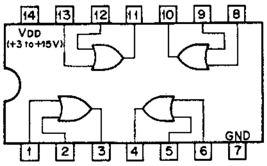
A	Y
0	1
1	0

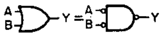
0; LOW LEVEL
1; HIGH LEVEL

SN16913P (TI)
— TOP VIEW —


Vcc
(+4 to+15V)
GND
1
2
3
4
5
6
7
8
Vcc LOCAL
SIG MIX OUT
GND

TC4071BP (TOSHIBA)
C-MOS 2-INPUT OR GATE
— TOP VIEW —


VDD
(+3 to+15V)
GND
14 13 12 11 10 9 8
1 2 3 4 5 6 7

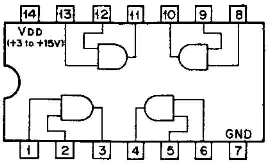


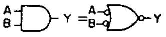
$Y = A + B = \overline{\bar{A} \cdot \bar{B}}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

TC4081BP (TOSHIBA)
C-MOS 2-INPUT AND GATE
— TOP VIEW —


VDD
(+3 to +15V)
GND
14 13 12 11 10 9 8
1 2 3 4 5 6 7

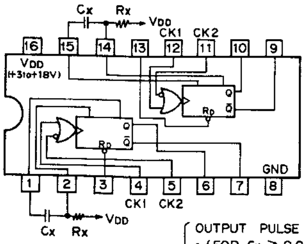


$Y = A \cdot B = \overline{\bar{A} + \bar{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

TC4528BFHB (TOSHIBA) FLAT PACKAGE
C-MOS RETRIGGERABLE/RESETTABLE MMV
— TOP VIEW —

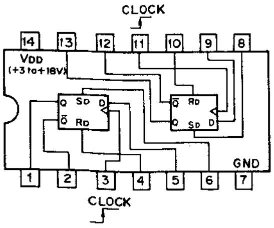

Cx Rx
VDD
CK1 CK2
16 15 14 13 12 11 10 9
VDD
(+3to+18V)
Q
Q̄
RD
GND
1 2 3 4 5 6 7 8
CK1 CK2
Cx Rx
VDD

INPUTS			OUTPUTS	
CK1	CK2	RD	Q	$\bar{Q}$
↑	1	1	⊓	⊔
↑	0	1	Q	$\bar{Q}$
1	↓	1	Q	$\bar{Q}$
0	↓	1	⊓	⊔
X	X	0	0	1

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

OUTPUT PULSE WIDTH Q OR $\overline{Q}$
• (FOR $Cx \geqq 0.01\mu F$ USE FORMULA)
$PW = 0.2 \cdot Rx \cdot Cx \cdot \ell n\,(V_{DD} - GND)$
• (FOR $Cx < 0.01\mu F$ USE DATA BOOK.)

TC504013BP (TOSHIBA)
C-MOS D-TYPE FLIP FLOP WITH DIRECT SET/RESET
— TOP VIEW —


CLOCK
14 13 12 11 10 9 8
VDD
(+3 to+18V)
Q SD D
Q̄ RD
Q̄ RD
Q SD D
GND
1 2 3 4 5 6 7
CLOCK

DIRECT R-S FLIP FLOP

SD	RD	Q	$\bar{Q}$
0	0	Qn	$\overline{Qn}$
0	1	0	1
1	0	1	0
1	1	0	1

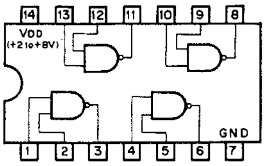
D-TYPE FLIP FLOP

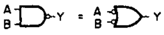
CKn	CKn+1
D	Q
0	0
1	1

CLOCK CK; ↑
CKn; BEFORE CLOCK
CKn+1; AFTER CLOCK

0; LOW LEVEL
1; HIGH LEVEL

TC40H000P (TOSHIBA)
C-MOS 2-INPUT NAND GATE
— TOP VIEW —


14 13 12 11 10 9 8
VDD
(+2 to+8V)
GND
1 2 3 4 5 6 7

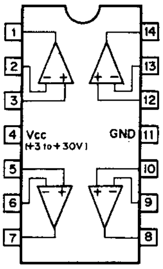


$Y = \overline{A \cdot B} = \bar{A} + \bar{B}$

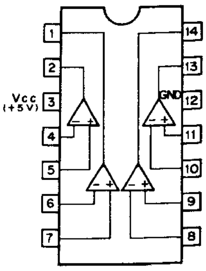
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

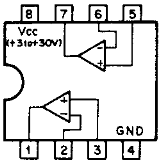
uPC324C (NEC)
QUAD. OP AMPLIFIER
— TOP VIEW —

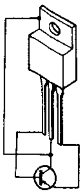

1 2 3 4 5 6 7
14 13 12 11 10 9 8
Vcc
(+3 to+30V)
GND

uPC339C (NEC)
COMPARATOR
— TOP VIEW —

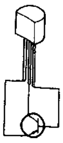

1 2 3 4 5 6 7
14 13 12 11 10 9 8
Vcc
(+5V)
GND

uPC358C (NEC)
DUAL OPERATIONAL AMPLIFIERS
— TOP VIEW —

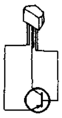

8 7 6 5
Vcc
(+3to+30V)
GND
1 2 3 4



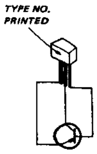
2SA768
2SA771



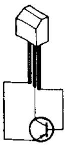
2SA844
2SA933



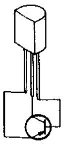
2SA1048
2SA1115


TYPE NO.
PRINTED

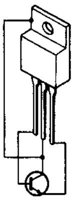
2SA1175
2SA1175F



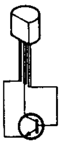
2SB733



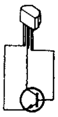
2SB739



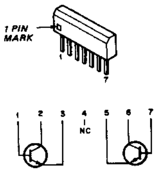
2SC1569
2SC1826
2SC1986



2SC1740
2SC2878

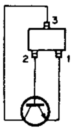


2SC1740S
2SC2458
2SC2603
2SC2603G

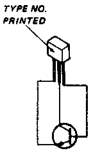

1 PIN
MARK
1
7
1
2
3
4
NC
5
6
7

2SC2771

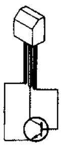
TOP VIEW (SCALE 4/1)



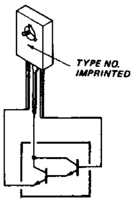
2SC2712


TYPE NO.
PRINTED

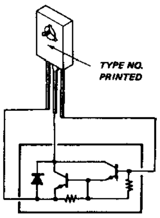
2SC2785E
2SC2785F



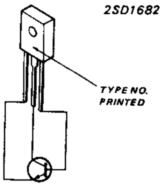
2SD773
2SD774


TYPE NO.
IMPRINTED

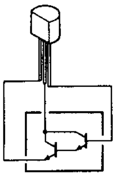
2SD894


TYPE NO.
PRINTED

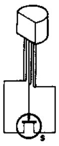
2SD998


TYPE NO.
PRINTED

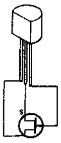
2SD1682



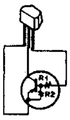
2SD1111



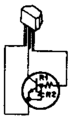
2SK105A



2SK523

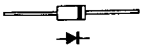


DTA124XS (R1=22K, R2=47K)
DTA144ES (R1=47K, R2=47K)

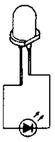


DTC124ES (R1=22K, R2=22K)
DTC124XS (R1=22K, R2=47K)
DTC144ES (R1=47K, R2=47K)

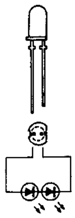
DIODE



10E-2
11E2
1S1555
1S1555S
1SS119
1SS133
1SS148
ERB12-? ?
SIB01-02

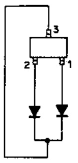


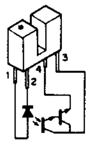
GL-5HD5 ; RED



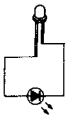
TLY255 ; YELLOW

TOP VIEW (SCALE 4/1) *1S2837*

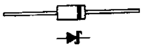




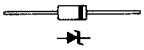
GP-1L52
GP-1L53



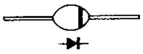
TLY123 ; YELLOW
TLUY154 ; YELLOW
TLUG154 ; GREEN



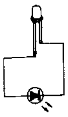
1SS97
1SS97-1
1SS99
21DQ04



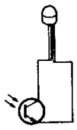
RD ? ?EB ?
RD ? ?ESB ?



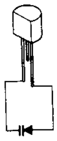
U05E
U05G



BR5104S ; RED



SPS102



FC54M

SECTION 14
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

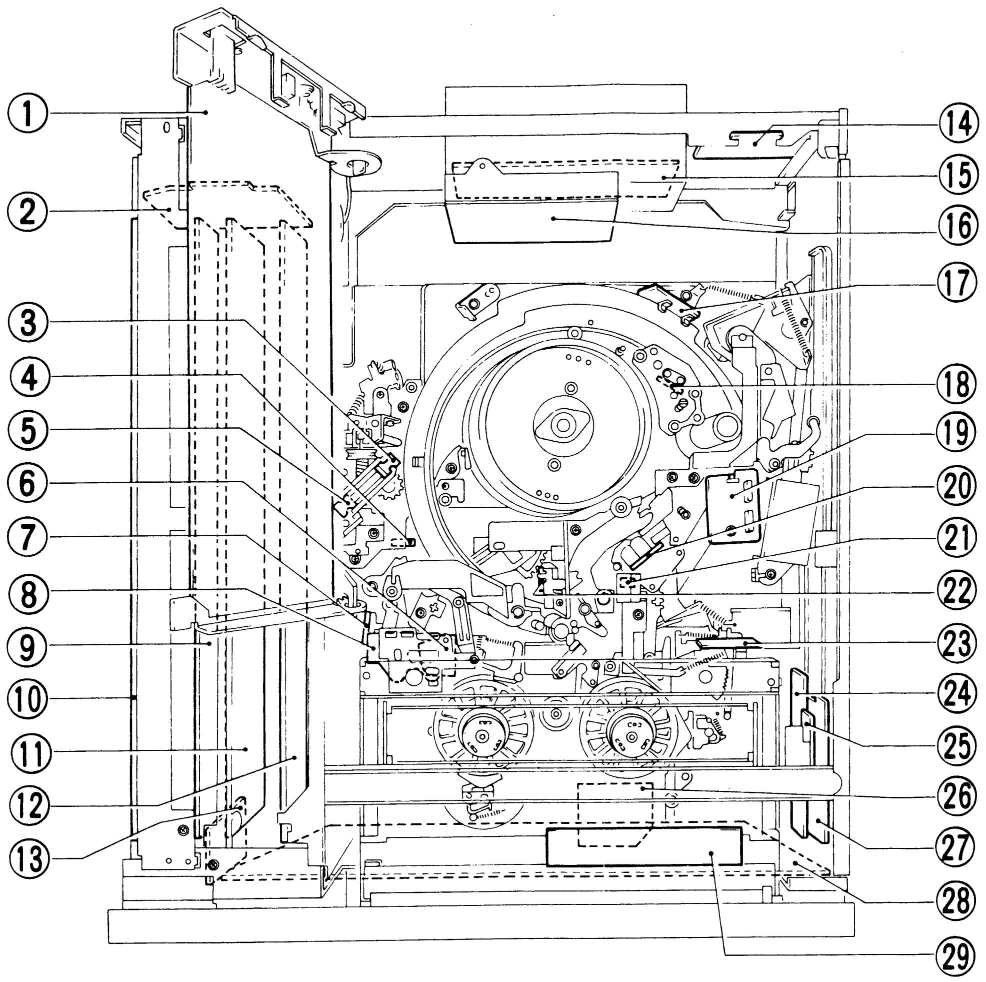
CIRCUIT FUNCTION OF THE PRINTED CIRCUIT BOARD

Circuit information is provided below.

SYSTEM	BOARD	CIRCUIT FUNCTION
VIDEO	RP-31A	PB Amplifier
	VP-21A	Y/C Demodulator
AUDIO	AU-82A	PB Amplifier
	AU-89A	Dolby
	CP-112A	Output Amplifier
	DUS-92	Audio/CTL Head
	DUS-147	Audio/CTL Head
	HP-30	Headphones
SERVO	EC-28	CTL Head
	DUS-92	Audio/CTL Head
	DUS-147	Audio/CTL Head
	PT-9	Reel Motor Driver
	SV-93A	Servo System
POWER	AC-65	AC Input
	DC-31	DC Supply
	UR-14	Switching Regulator
KEY	KY-105A	Function Key/Display
SYSTEM CONTROL	IF-132	33P Interface
	PD-40A	Plunger Solenoids
	PD-41	Plunger Solenoids
	PH-5	Tape Beginning/End Sensor
	SY-106A	System Control
OTHERS	CC-31	Cassette Compartment Driver
	CC-32	Cassette In Detector
	CC-33	Cassette Down Detector
	LM-13	Threading Motor
	LP-41	Cassette Compartment Light
	PTC-30	SP, Miss REC. KCA Detector
	PTC-33	FR Stop Detector
	PTC-34	Unthreadend Detector
	PTC-35	S/T Reel Rotation Detector
	RM-39	Reel Motor
	SE-46	Tension Regulator Detector
	TG-22	Tension Regulator LED

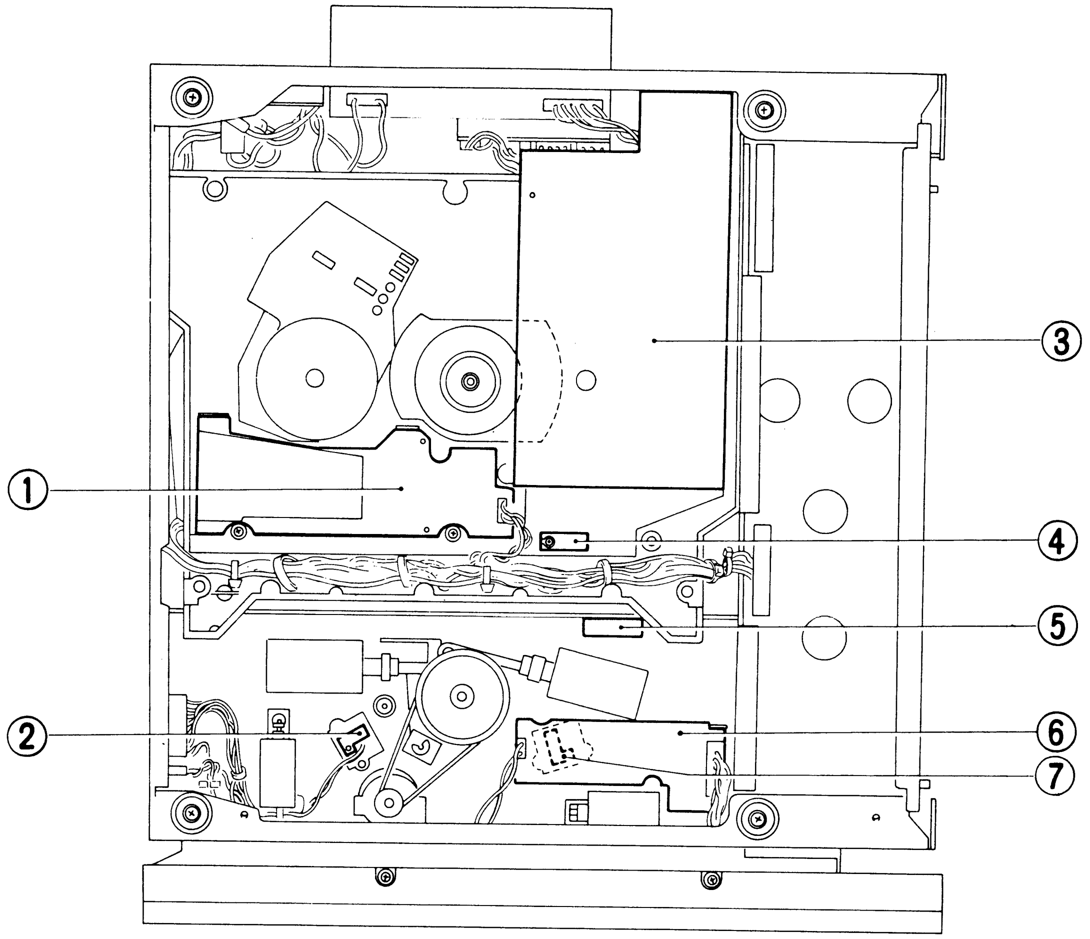
LOCATION OF THE PRINTED CTRCUIT BOARD

(TOP VIEW)



1 VP-21A Board
2 CP-112A Board
3 PH-5 Board
4 LM-13 Board
5 PH-5 Board
6 SE-46 Board
7 PTC-34 Board
8 PTC-30 Board
9 AU-89A Board
10 AU-82A Board
11 SV-93A Board
12 SY-106A Board
13 HP-30 Board
14 AC-65 Board
15 UR-14 Board
16 DC-31 Board
17 PTC-33 Board
18 DUS-92 Board
19 DUS-147 Board
20 EC-28 Board
21 PH-5 Board
22 PH-5 Board
23 CC-33 Board
24 CC-32 Board
25 CC-31 Board
26 RM-39 Board
27 PD-40A Board
28 KY-105A Board
29 LP-41 Board

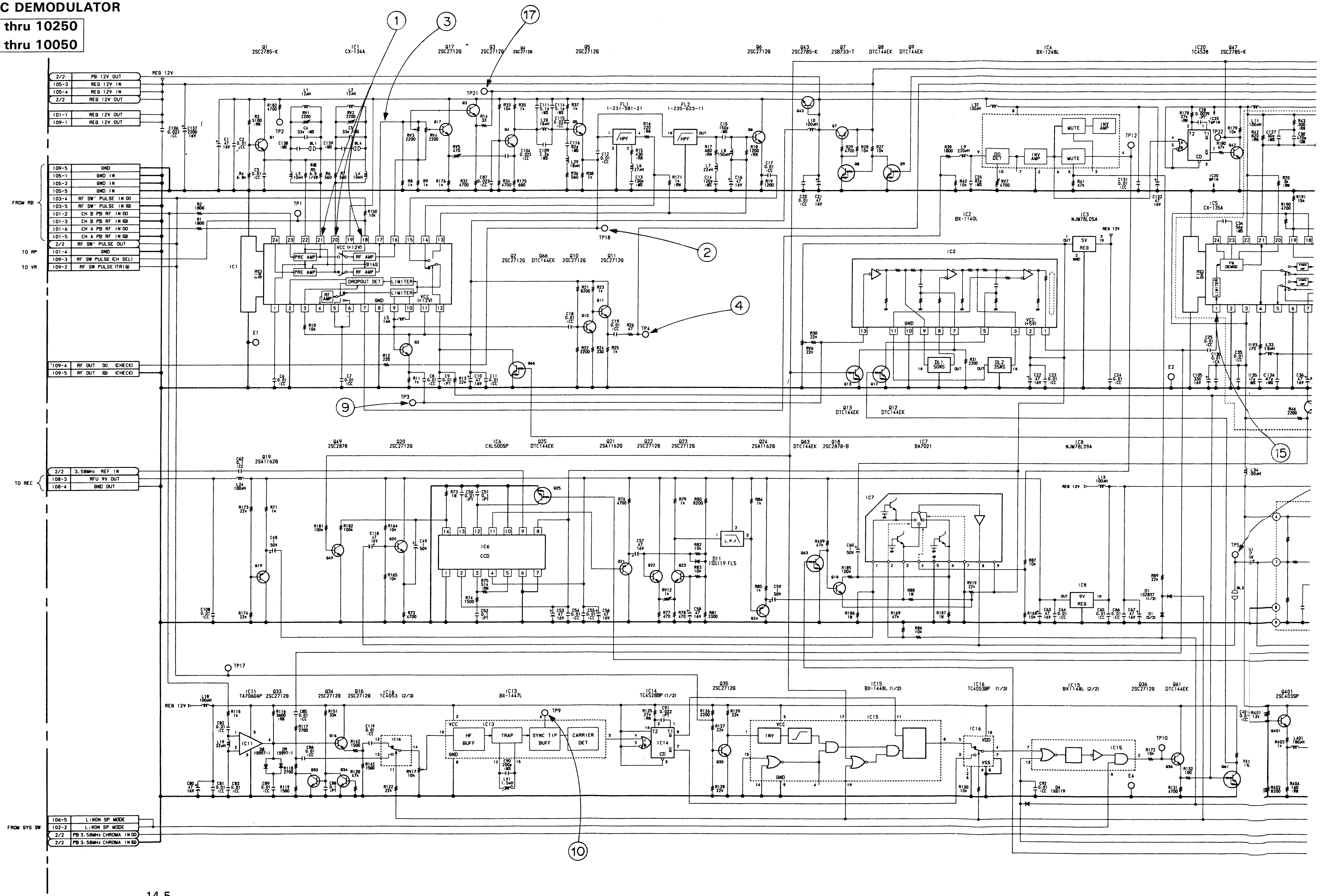
〈BOTTOM VIEW〉



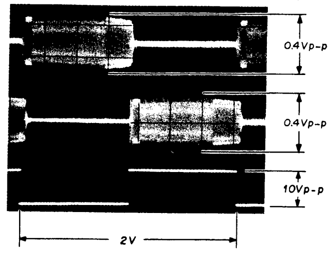
1 RP-31A Board
2 PTC-35 Board
3 IF-132 Board
4 PT-9 Board
5 TG-22 Board
6 PD-41 Board
7 PTC-35 Board

VP-21A(1/2): Y/C DEMODULATOR

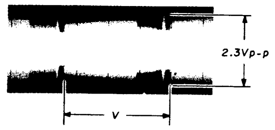
UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050


①
③
⑰
②
④
⑨
⑩
⑮
2/2 PB 12V OUT
105-3 REG 12V IN
105-4 REG 12V IN
2/2 REG 12V OUT
101-1 REG 12V OUT
109-1 REG 12V OUT
109-5 GND
105-1 GND IN
105-2 GND IN
105-5 GND IN
103-4 RF SW' PULSE IN
103-5 RF SW' PULSE IN
101-2 CH B PB RF IN
101-3 CH B PB RF IN
101-6 CH A PB RF IN
101-5 CH A PB RF IN
2/2 RF SW' PULSE OUT
101-4 GND
109-3 RF SW PULSE (CH SEL)
109-2 RF SW PULSE (TRIG)
FROM RB
TO RP
TO VR
109-4 RF OUT (CHECK)
109-5 RF OUT (CHECK)
2/2 3.58MHz REF IN
108-3 RFU 9V OUT
108-4 GND OUT
TO REC
106-5 L:NON SP MODE
102-2 L:NON SP MODE
2/2 PB 3.58MHz CHROMA IN
2/2 PB 3.58MHz CHROMA IN
FROM SYS SW
REG 12V
IC1 CX-134A
IC2 BX-1140L
IC3 NJM78L05A
IC4 BX-1248L
IC5 CX-135A
IC6 CXL500SP
IC7 BA7021
IC8 NJM78L09A
IC11 TA7060AP
IC13 BX-1447L
IC14 TC4528BP (1/2)
IC15 BX-1448L (1/2)
IC15 BX1148L (2/2)
IC16 TC4053 (2/3)
IC16 TC4053BP (1/3)
IC20 TC4528
FL1 1-231-581-21
FL2 1-235-623-11
PRE AMP
RF AMP
BIAS
DROPOUT DET
LIMITER
VCC (+12V)
GND
HPF
MUTE
INV AMP
DO DET
5V REG
9V REG
DL1 50NS
DL2 35NS
FM DEMOD
CCD
L.P.F
HF BUFF
TRAP
SYNC TIP BUFF
CARRIER DET
INV
TP1
TP2
TP3
TP4
TP5
TP9
TP10
TP12
TP17
TP18
TP21
TP22
E1
E2
E4

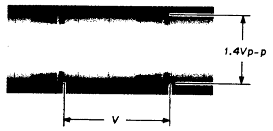
① IC1 20PIN



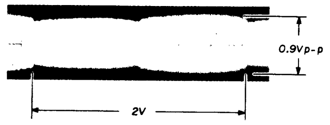
② TP18



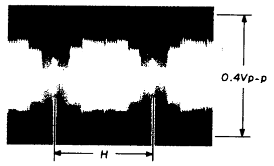
③ RV3 CENTER



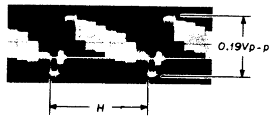
④ TP4



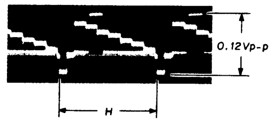
⑤ TP11



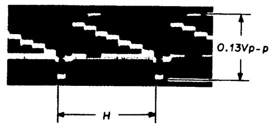
⑥ TP19



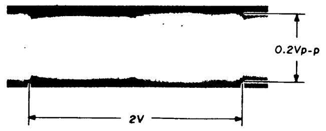
⑦ TP14



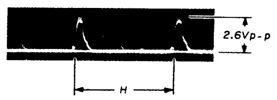
⑧ TP13



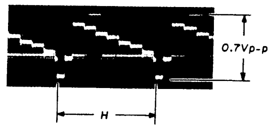
⑨ TP3



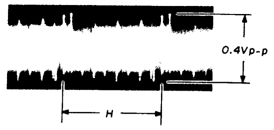
⑩ TP9



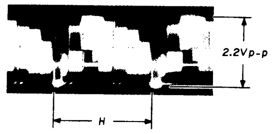
⑪ TP5



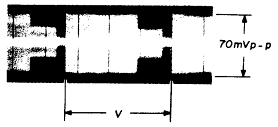
⑫ TP6



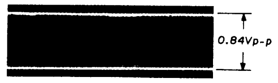
⑬ TP7



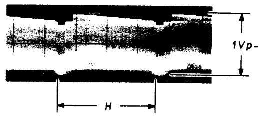
⑭ TP8



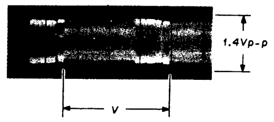
⑮ IC5 1PIN

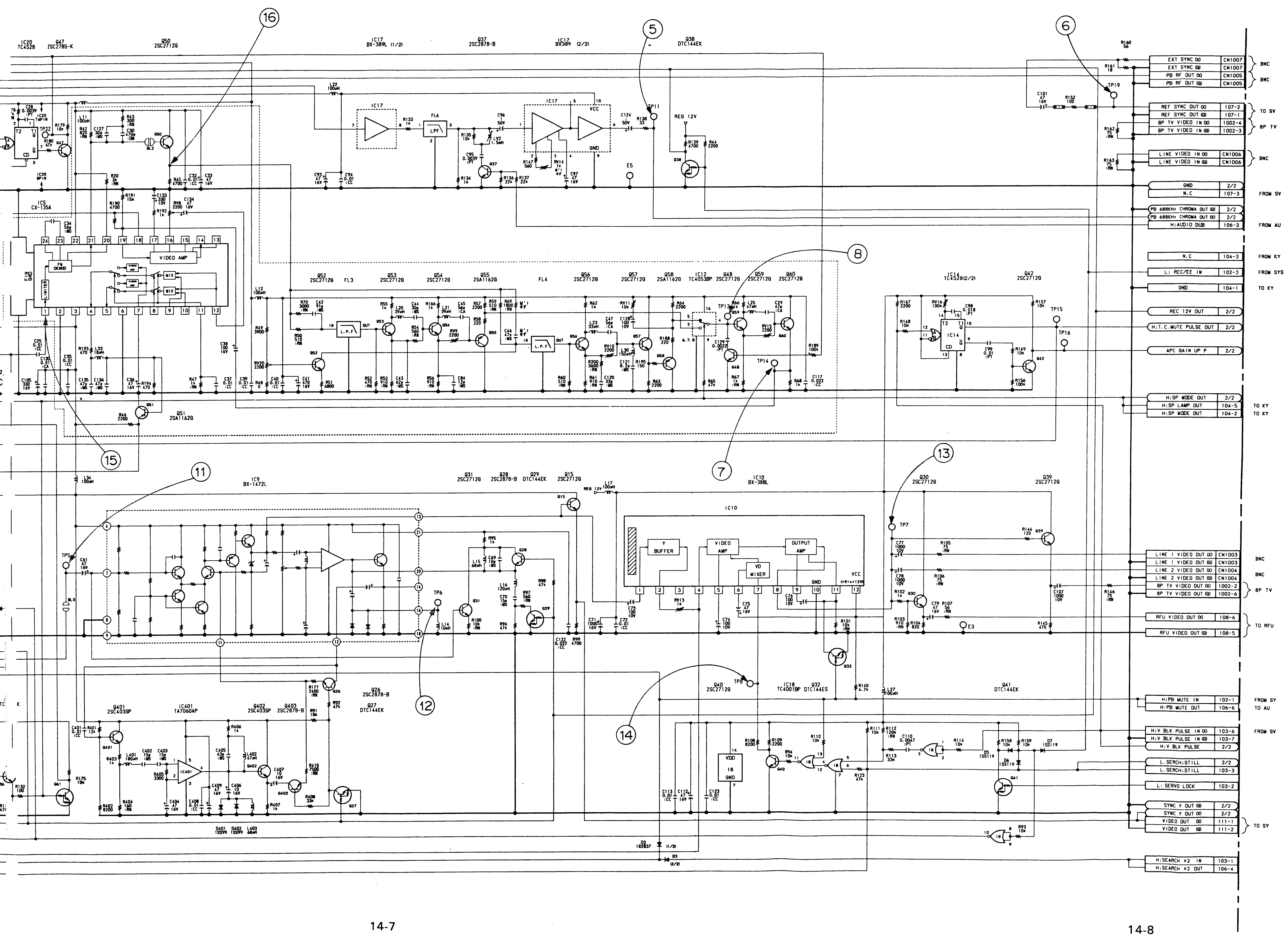


⑯ Q50 EMITTER



⑰ TP21

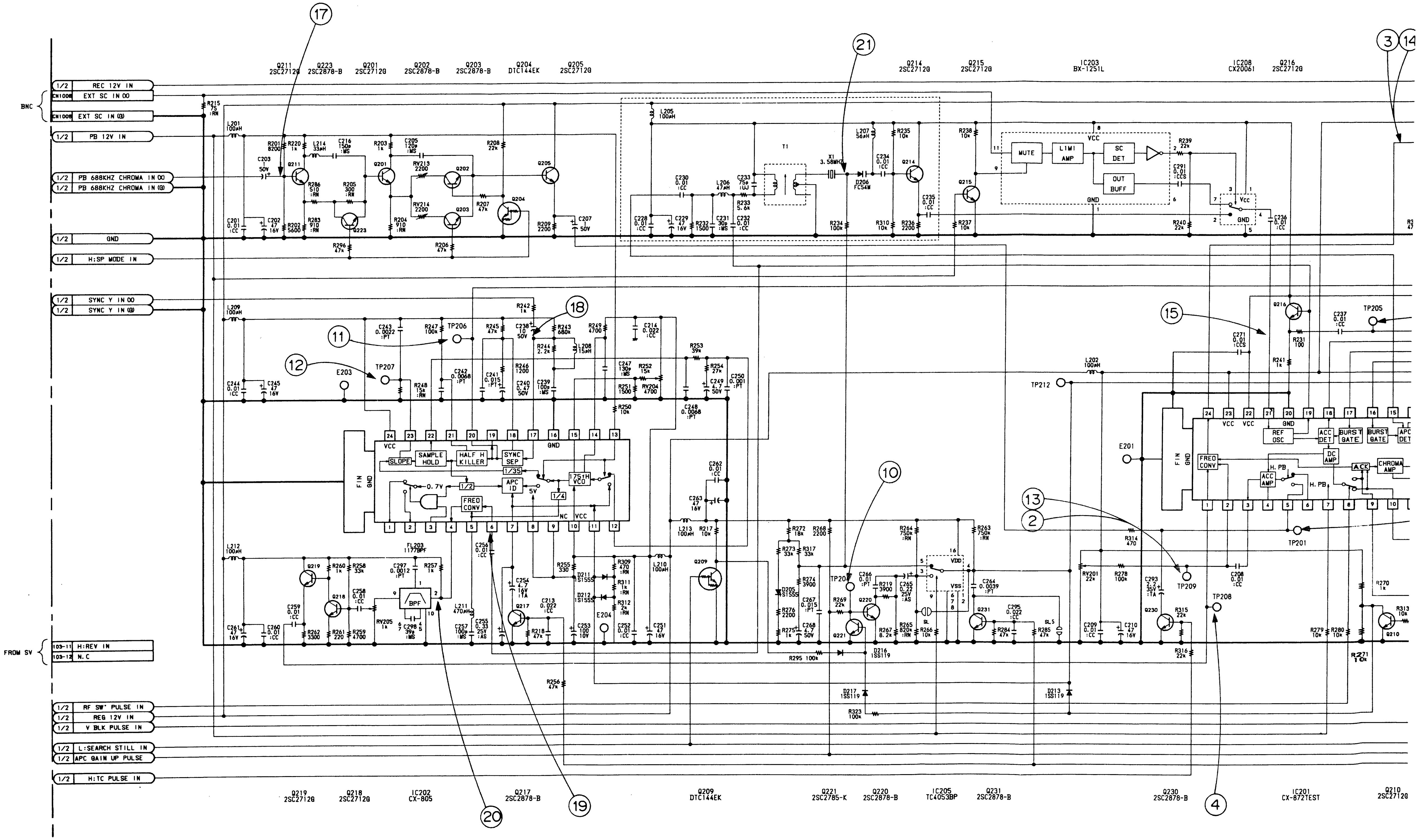


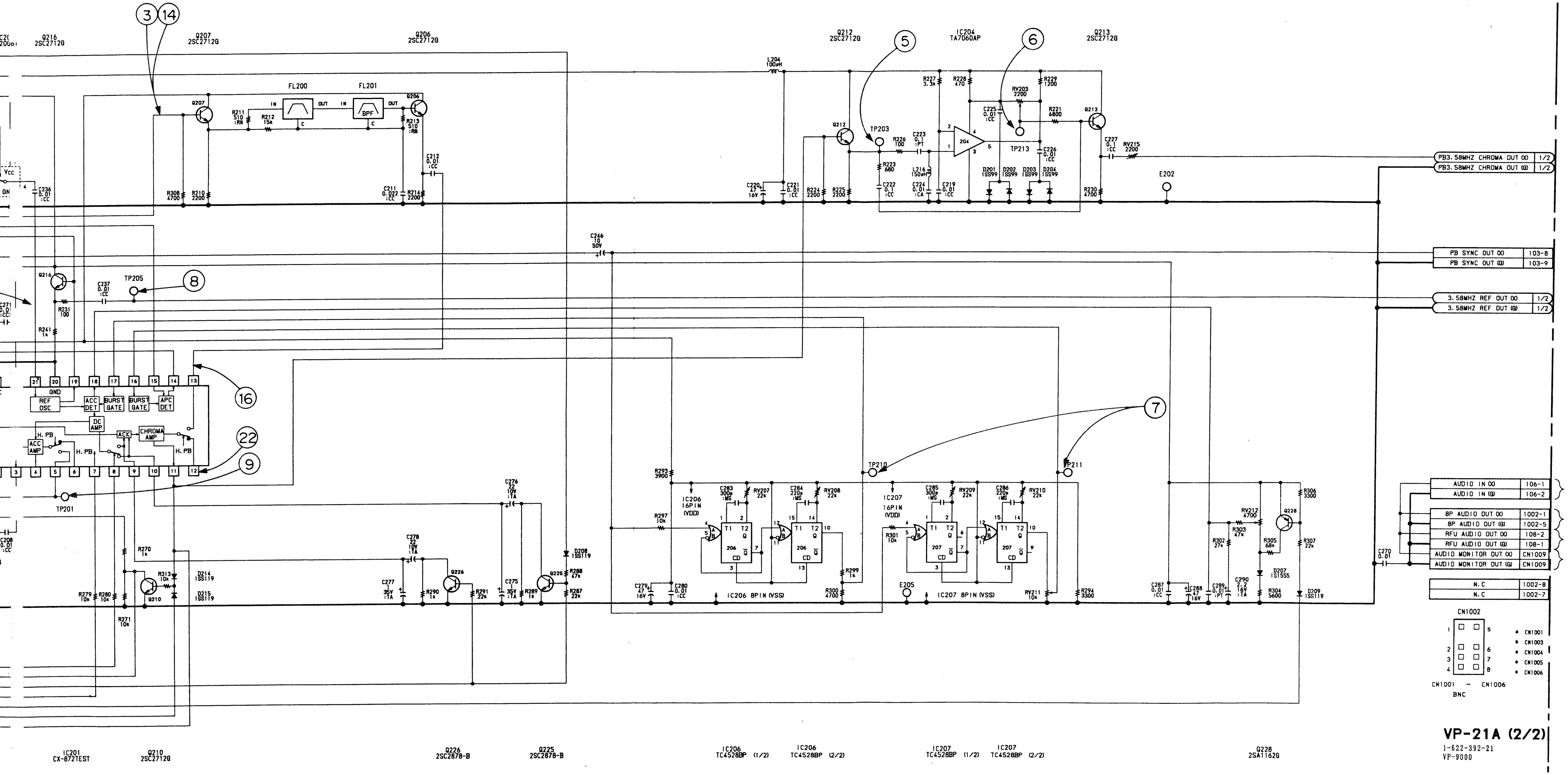

IC20 TC4528
Q47 2SC2785-K
Q50 2SC2712G
IC17 BX-389L (1/2)
Q37 2SC2878-B
IC17 BX389 (2/2)
Q38 DTC144EK
IC5 CX-135A
VIDEO AMP
FM DEMOD
LIMITER
MIX
REG 12V
VCC
GND
LPF
FL6
FL3
FL4
L.P.F
Q52 2SC2712G
Q53 2SC2712G
Q54 2SC2712G
Q55 2SA1162G
Q56 2SC2712G
Q57 2SC2712G
Q58 2SA1162G
IC12 TC4053BP
Q48 2SC2712G
Q59 2SC2712G
Q60 2SC2712G
IC14 TC4528(2/2)
Q42 2SC2712G
Q51 2SA1162G
IC9 BX-1472L
Q31 2SC2712G
Q28 2SC2878-B
Q29 DTC144EK
Q15 2SC2712G
IC10 BX-388L
Q30 2SC2712G
Q39 2SC2712G
Y BUFFER
VIDEO AMP
YD MIXER
OUTPUT AMP
Q401 2SC403SP
IC401 TA7060AP
Q402 2SC403SP
Q403 2SC2878-B
Q26 2SC2878-B
Q27 DTC144EK
Q40 2SC2712G
IC18 TC4001BP
Q32 DTC144ES
Q41 DTC144EK
VDD
GND
D401 1SS99
D402 1SS99
L403 68mH
D3 1S2837
TP5
TP6
TP7
TP8
TP11
TP13
TP14
TP15
TP16
TP19
TP22
E3
E5
⑤
⑥
⑦
⑧
⑪
⑫
⑬
⑭
⑮
⑯
EXT SYNC (X) CN1007
EXT SYNC (G) CN1007
PB RF OUT (X) CN1005
PB RF OUT (G) CN1005
BNC
BNC
REF SYNC OUT (X) 107-2
REF SYNC OUT (G) 107-1
8P TV VIDEO IN (X) 1002-4
8P TV VIDEO IN (G) 1002-3
TO SV
8P TV
LINE VIDEO IN (X) CN1006
LINE VIDEO IN (G) CN1006
BNC
GND 2/2
N.C 107-3
FROM SV
PB 688KHz CHROMA OUT (G) 2/2
PB 688KHz CHROMA OUT (X) 2/2
H:AUDIO DUB 106-3
FROM AU
N.C 104-3
FROM KY
L: REC/EE IN 102-3
FROM SYS
GND 104-1
TO KY
REC 12V OUT 2/2
H:T.C.MUTE PULSE OUT 2/2
APC GAIN UP P 2/2
H:SP MODE OUT 2/2
H:SP LAMP OUT 104-5
H:SP MODE OUT 104-2
TO KY
TO KY
LINE 1 VIDEO OUT (X) CN1003
LINE 1 VIDEO OUT (G) CN1003
LINE 2 VIDEO OUT (X) CN1004
LINE 2 VIDEO OUT (G) CN1004
BNC
BNC
8P TV VIDEO OUT (X) 1002-2
8P TV VIDEO OUT (G) 1002-6
8P TV
RFU VIDEO OUT (X) 108-6
RFU VIDEO OUT (G) 108-5
TO RFU
H:PB MUTE IN 102-1
H:PB MUTE OUT 106-6
FROM SY
TO AU
H:V BLK PULSE IN (X) 103-6
H:V BLK PULSE IN (G) 103-7
H:V BLK PULSE 2/2
FROM SV
L.SERCH:STILL 2/2
L.SERCH:STILL 103-3
L: SERVO LOCK 103-2
SYNC Y OUT (G) 2/2
SYNC Y OUT (X) 2/2
VIDEO OUT (X) 111-1
VIDEO OUT (G) 111-2
TO SY
H:SEARCH ×2 IN 103-1
H:SEARCH ×2 OUT 106-4

VP-21A (1/2)
1-622-392-21
VP-9000

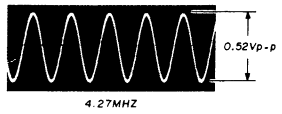
VP-21A(2/2): Y/C DEMODULATOR

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

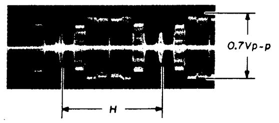

BNC
1/2 REC 12V IN
CN100B EXT SC IN (I)
CN100B EXT SC IN (G)
1/2 PB 12V IN
1/2 PB 688KHZ CHROMA IN (I)
1/2 PB 688KHZ CHROMA IN (G)
1/2 GND
1/2 H:SP MODE IN
1/2 SYNC Y IN (I)
1/2 SYNC Y IN (G)
FROM SV
103-11 H:REV IN
103-12 N.C
1/2 RF SW' PULSE IN
1/2 REG 12V IN
1/2 V BLK PULSE IN
1/2 L:SEARCH STILL IN
1/2 APC GAIN UP PULSE
1/2 H:TC PULSE IN
Q211 2SC2712G
Q223 2SC2878-B
Q201 2SC2712G
Q202 2SC2878-B
Q203 2SC2878-B
Q204 DTC144EK
Q205 2SC2712G
Q214 2SC2712G
Q215 2SC2712G
IC203 BX-1251L
IC208 CX20061
Q216 2SC2712G
Q219 2SC2712G
Q218 2SC2712G
IC202 CX-805
Q217 2SC2878-B
Q209 DTC144EK
Q221 2SC2785-K
Q220 2SC2878-B
IC205 TC4053BP
Q231 2SC2878-B
Q230 2SC2878-B
IC201 CX-872TEST
Q210 2SC2712G
MUTE
LIMI AMP
SC DET
OUT BUFF
VCC
GND
T1
X1 3.58MHZ
D206 FC54M
FIN GND
SLOPE
SAMPLE HOLD
HALF H KILLER
SYNC SEP
1/35
175fH VCO
APC ID
1/2
1/4
FREQ CONV
0.7V
5V
NC
BPF
FL203 1177BPF
VDD
VSS
REF OSC
ACC DET
BURST GATE
DC AMP
ACC AMP
ACK
CHROMA AMP
H.PB
TP205
TP206
TP207
TP208
TP209
TP201
TP212
E201
E203
E204
17
18
21
3
14
11
12
15
10
13
2
20
19
4


③ ⑭
Q216 2SC2712G
Q207 2SC2712G
Q206 2SC2712G
FL200
FL201
IN
OUT
BPF
R211 510 :RN
R212 15k
R213 510 :RN
R308 4700
R210 2200
C211 0.022 :CC
R214 2200
C212 0.01 :CC
C236 0.01 :CC
Vcc
GN
Q216
C237 0.01 :CC
TP205
⑧
R231 100
R241 1k
27
20
GND
19
18
17
16
15
14
13
REF OSC
ACC DET
BURST GATE
BURST GATE
APC DET
DC AMP
ACK
CHROMA AMP
H. PB
ACC AMP
H. PB
H. PB
4
5
6
7
8
9
10
11
12
⑯
㉒
⑨
TP201
C208 0.01 :CC
R270 1k
R313 10k
D214 1SS119
D215 1SS119
Q210
R279 10k
R280 10k
R271 10k
IC201 CX-872TEST
Q210 2SC2712G
C246 10 50V
L204 100μH
Q212 2SC2712G
⑤
IC204 TA7060AP
⑥
Q213 2SC2712G
R227 3.3k
R228 470
R229 1200
RV203 2200
C225 0.01 :CC
R221 6800
Q212
TP203
R226 100
C223 0.1 :PT
204
TP213
C226 0.01 :CC
C227 0.1 :CC
RV215 2200
R223 680
L216 150μH
D201 1SS99
D202 1SS99
D203 1SS99
D204 1SS99
C220 47 16V
C221 0.01 :CC
R224 2200
R225 2200
C222 0.1 :CC
C224 0.01 :CA
C219 0.01 :CC
R230 4700
E202
PB3.58MHZ CHROMA OUT (X) 1/2
PB3.58MHZ CHROMA OUT (G) 1/2
PB SYNC OUT (X) 103-8
PB SYNC OUT (G) 103-9
3.58MHZ REF OUT (X) 1/2
3.58MHZ REF OUT (G) 1/2
⑦
TP210
TP211
R293 3900
IC206 16PIN (VDD)
C283 300p :MS
RV207 22k
C284 220p :MS
RV208 22k
R297 10k
T1 T2
206
CD
R299 1k
R300 4700
C279 47 16V
C280 0.01 :CC
IC206 8PIN (VSS)
IC207 16PIN (VDD)
C285 300p :MS
RV209 22k
C286 220p :MS
RV210 22k
R301 10k
207
E205
IC207 8PIN (VSS)
RV211 10k
R294 3300
C276 22 10V :TA
C278 22 10V :TA
C277 35V :TA
R290 1k
Q226
R291 22k
C275 35V :TA
R289 1k
Q225
D208 1SS119
R288 47k
R287 22k
RV212 4700
R303 47k
R302 27k
R305 68k
Q228
R306 3300
R307 22k
D207 1S1555
C287 0.01 :CC
C288 47 16V
C289 0.01 :PT
C290 2.2 16V :TA
R304 5600
D209 1SS119
C270 0.01
AUDIO IN (X) 106-1
AUDIO IN (G) 106-2
FROM
8P AUDIO OUT (X) 1002-1
8P AUDIO OUT (G) 1002-5
8P TV
RFU AUDIO OUT (X) 108-2
RFU AUDIO OUT (G) 108-1
TO RF MOD
AUDIO MONITOR OUT (X) CN1009
AUDIO MONITOR OUT (G) CN1009
AUDIO RCA PIN
N.C 1002-8
N.C 1002-7
8P TV
CN1002
1 5
2 6
3 7
4 8
* CN1001
* CN1003
* CN1004
* CN1005
* CN1006
CN1001 ~ CN1006
BNC
VP-21A (2/2)
1-622-392-21
VP-9000
Q226 2SC2878-B
Q225 2SC2878-B
IC206 TC4528BP (1/2)
IC206 TC4528BP (2/2)
IC207 TC4528BP (1/2)
IC207 TC4528BP (2/2)
Q228 2SA1162G

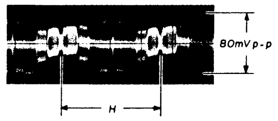
④ TP208
PB



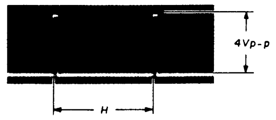
⑤ TP203



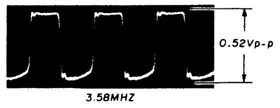
⑥ TP213



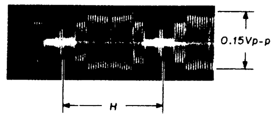
⑦ TP210
TP211



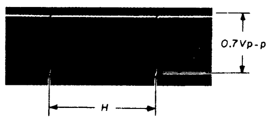
⑧ TP205



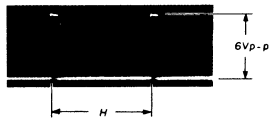
⑨ TP201



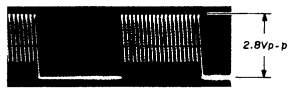
⑩ TP204



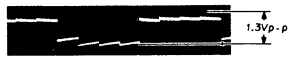
⑪ TP206



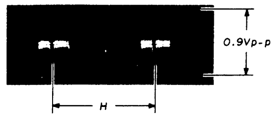
⑫ TP207



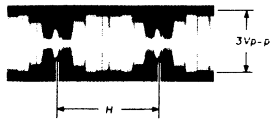
IC202
22PIN



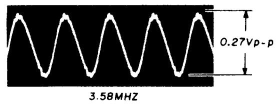
⑬ TP209
PB



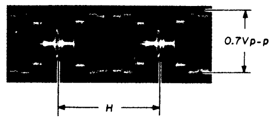
⑭ IC201
24PIN
PB



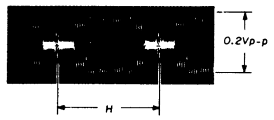
⑮ IC201
21PIN



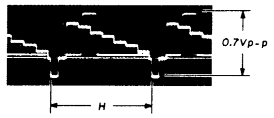
⑯ IC201
13PIN



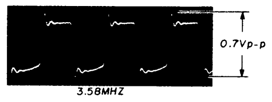
⑰ Q211
BASE



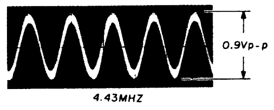
⑱ IC202
17PIN



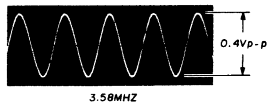
⑲ IC202
6PIN



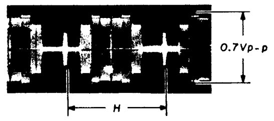
⑳ IC202
4PIN



㉑ X1



㉒ IC201
12PIN



VP-21A: Y/C DEMODULATOR (SOLDERING SIDE)

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

VP-21A (1-622-392-21)-S

CN101	B-9
CN102	L-6
CN103	L-5
CN104	L-9
CN105	L-2
CN106	L-7
CN107	B-1
CN108	L-4
CN109	B-9
CN111	L-3
CN1002	B-1
CN1003	F-1
CN1004	G-1
CN1005	E-1
CN1006	E-1
CN1007	D-1
CN1008	C-1
CN1009	H-1
D1	E-5
D3	G-9
D4	F-9
D5	B-3
D6	B-3
D7	B-3
D8	C-9
D9	D-9
D201	K-5
D202	K-5
D203	K-5
D204	K-5
D205	G-6
D206	H-7
D207	K-7
D208	L-7
D209	L-6
D210	J-6
D211	K-6
D213	J-6
D214	G-7
D215	G-7
D216	G-7
D217	G-7
D401	D-3
D402	D-3
E1	C-7
E2	E-6
E3	F-2
E4	E-9
E5	A-3
E201	J-9
E202	K-7
E203	K-4
E204	F-5
E205	L-2
IC1	C-8
IC2	D-7
IC3	D-6
IC4	E-5
IC5	D-5
IC6	G-4
IC7	E-4
IC8	F-3
IC9	D-3
IC10	E-2
IC11	D-9
IC12	B-5
IC13	E-9
IC14	B-3
IC15	E-8
IC16	F-8
IC17	E-7
IC18	B-2
IC20	D-3
IC201	K-8
IC202	J-5
IC203	H-6
IC204	K-6
IC205	F-6
IC206	K-3
IC207	K-2
IC208	G-6
IC401	B-3
Q1	B-9
Q2	C-8
Q3	B-7
Q4	A-8
Q5	A-7
Q6	C-7
Q7	G-3
Q8	G-3
Q9	G-3
Q10	C-8
Q11	D-8
Q12	D-7
Q13	D-7
Q15	F-3
Q16	D-9
Q17	B-8
Q18	E-4
Q19	H-2
Q20	F-4
Q21	H-4
Q22	H-4
Q23	H-4
Q24	G-5
Q25	G-4
Q26	D-2
Q27	D-3
Q28	E-3
Q29	E-3
Q30	G-2
Q31	E-3
Q32	F-2
Q33	D-8
Q34	F-8
Q35	D-9
Q36	E-9
Q37	E-8
Q38	G-2
Q39	E-2
Q40	B-2
Q41	A-3
Q42	B-4
Q44	C-7
Q45	D-7
Q47	C-4
Q48	B-4
Q49	F-4
Q50	C-6
Q51	E-5
Q52	C-6
Q53	A-6
Q54	A-5
Q55	A-4
Q56	A-5
Q57	B-4
Q58	B-4
Q59	C-5
Q60	C-4
Q61	E-9
Q62	A-8
Q62	E-5
Q63	E-6
Q201	H-9
Q202	H-9
Q203	H-8
Q204	H-9
Q205	H-9
Q206	K-7
Q207	J-7
Q209	F-7
Q210	J-7
Q211	G-9
Q212	L-6
Q213	L-5
Q214	H-7
Q215	G-6
Q216	H-5
Q217	G-5
Q218	J-7
Q219	J-7
Q220	G-6
Q221	G-7
Q223	H-9
Q225	L-8
Q226	L-8
Q228	K-7
Q230	J-9
Q231	G-5
Q401	C-2
Q402	E-4
Q403	F-3
RV1	B-9
RV2	B-8
RV3	B-8
RV4	B-8
RV5	A-8
RV6	D-8
RV7	E-6
RV8	D-4
RV9	A-5
RV10	B-5
RV11	B-4
RV12	H-4
RV13	E-2
RV14	E-8
RV15	C-5
RV16	A-3
RV17	F-9
RV19	E-5
RV20	C-6
RV201	J-9
RV203	K-6
RV204	K-4
RV205	J-7
RV207	J-4
RV208	J-3
RV209	J-3
RV210	J-2
RV211	K-2
RV212	K-7
RV213	H-9
RV214	H-9
RV215	K-5
RV401	F-4
SL1	B-8
SL2	C-5
SL3	F-4
SL4	A-9
SL5	F-5
TP1	B-9
TP2	B-8
TP3	D-8
TP4	D-7
TP5	F-4
TP6	C-2
TP7	G-2
TP8	B-2
TP9	E-9
TP10	E-9
TP11	F-8
TP12	E-5
TP13	C-4
TP14	D-4
TP15	B-3
TP16	C-4
TP17	B-9
TP18	A-9
TP19	B-2
TP21	B-7
TP22	D-4
TP201	J-8
TP203	K-6
TP204	G-7
TP205	H-5
TP206	J-4
TP207	J-4
TP208	J-8
TP209	J-8
TP210	L-4
TP211	K-2
TP212	K-6
TP213	L-6

9	E-3	Q221	G-7	TP6	C-2
0	G-2	Q223	H-9	TP7	G-2
1	E-3	Q225	L-8	TP8	B-2
2	F-2	Q226	L-8	TP9	E-9
3	D-8	Q228	K-7	TP10	E-9
4	F-8	Q230	J-9	TP11	F-8
5	D-9	Q231	G-5	TP12	E-5
6	E-9	Q401	C-2	TP13	C-4
7	E-8	Q402	E-4	TP14	D-4
8	G-2	Q403	F-3	TP15	B-3
9	E-2			TP16	C-4
0	B-2	RV1	B-9	TP17	B-9
1	A-3	RV2	B-8	TP18	A-9
2	B-4	RV3	B-8	TP19	B-2
4	C-7	RV4	B-8	TP21	B-7
5	D-7	RV5	A-8	TP22	D-4
7	C-4	RV6	D-8	TP201	J-8
8	B-4	RV7	E-6	TP203	K-6
9	F-4	RV8	D-4	TP204	G-7
0	C-6	RV9	A-5	TP205	H-5
1	E-5	RV10	B-5	TP206	J-4
2	C-6	RV11	B-4	TP207	J-4
3	A-6	RV12	H-4	TP208	J-8
4	A-5	RV13	E-2	TP209	J-8
5	A-4	RV14	E-8	TP210	L-4
6	A-5	RV15	C-5	TP211	K-2
7	B-4	RV16	A-3	TP212	K-6
8	B-4	RV17	F-9	TP213	L-6
9	C-5	RV19	E-5		
0	C-4	RV20	C-6		
1	E-9	RV201	J-9		
2	A-8	RV203	K-6		
2	E-5	RV204	K-4		
3	E-6	RV205	J-7		
01	H-9	RV207	J-4		
02	H-9	RV208	J-3		
03	H-8	RV209	J-3		
04	H-9	RV210	J-2		
05	H-9	RV211	K-2		
06	K-7	RV212	K-7		
07	J-7	RV213	H-9		
09	F-7	RV214	H-9		
0	J-7	RV215	K-5		
1	G-9	RV401	F-4		
2	L-6				
3	L-5	SL1	B-8		
4	H-7	SL2	C-5		
5	G-6	SL3	F-4		
6	H-5	SL4	A-9		
7	G-5	SL5	F-5		
8	J-7				
9	J-7	TP1	B-9		
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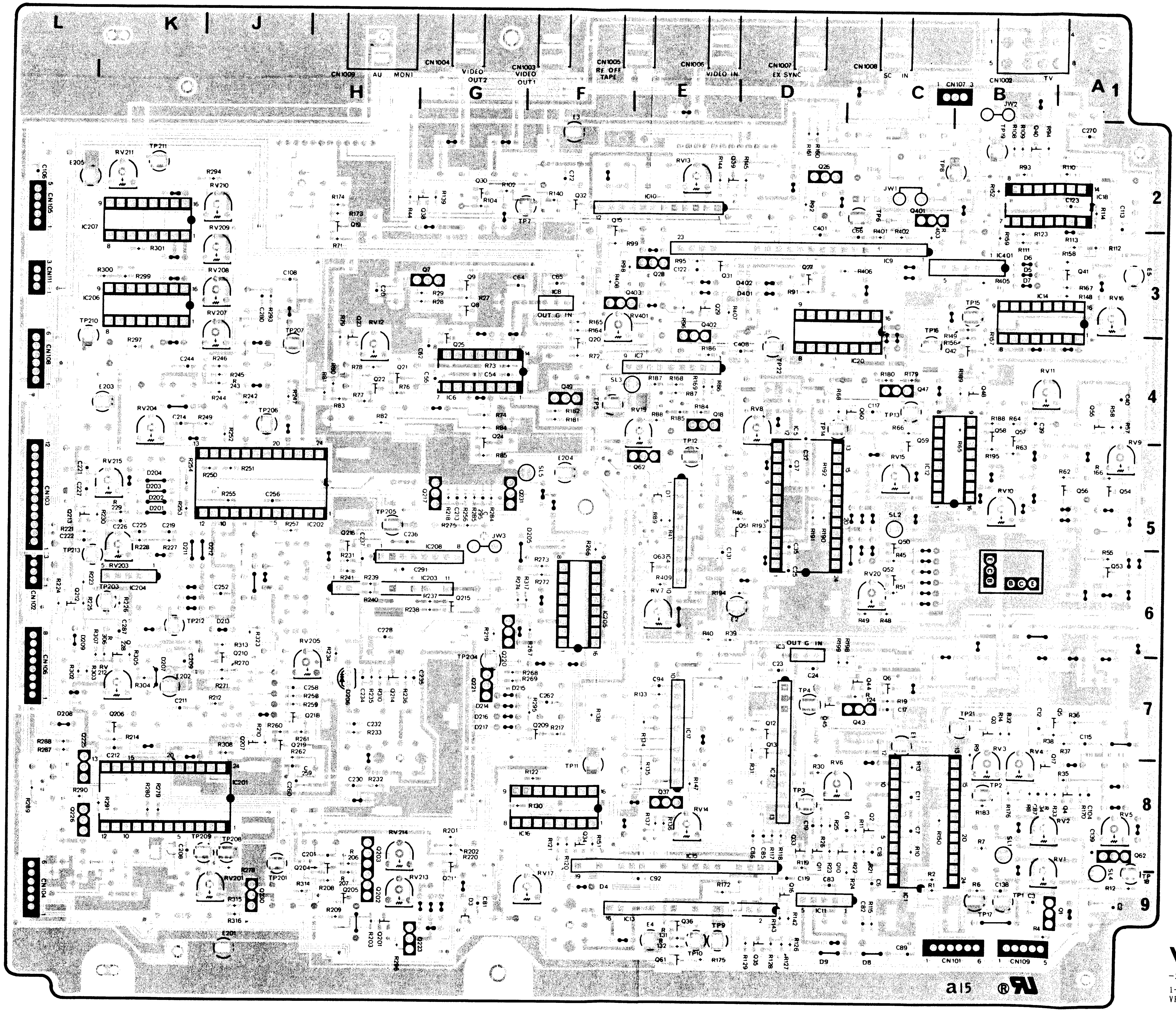
		TP3	D-8		
		TP4	D-7		
		TP5	F-4		


L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
CN1009
AU MONI
CN1004
VIDEO OUT2
CN1003 VIDEO OUT1
CN1005 REF OFF TAPE
CN1006
VIDEO IN
CN1007 EX SYNC
CN1008
SC IN
CN107
CN1002
TV
CN105
CN111
CN108
CN103
CN102
CN106
CN104
CN101
CN109
IC207
IC206
IC202
IC201
IC208
IC203
IC204
IC205
IC6
IC7
IC8
IC9
IC10
IC14
IC18
IC20
IC12
IC5
IC3
IC17
IC2
IC16
IC15
IC13
IC11
IC1
IC401
OUT G IN
a15

VP-21A

-SOLDERING SIDE-

1-622-392-21

VP-9000

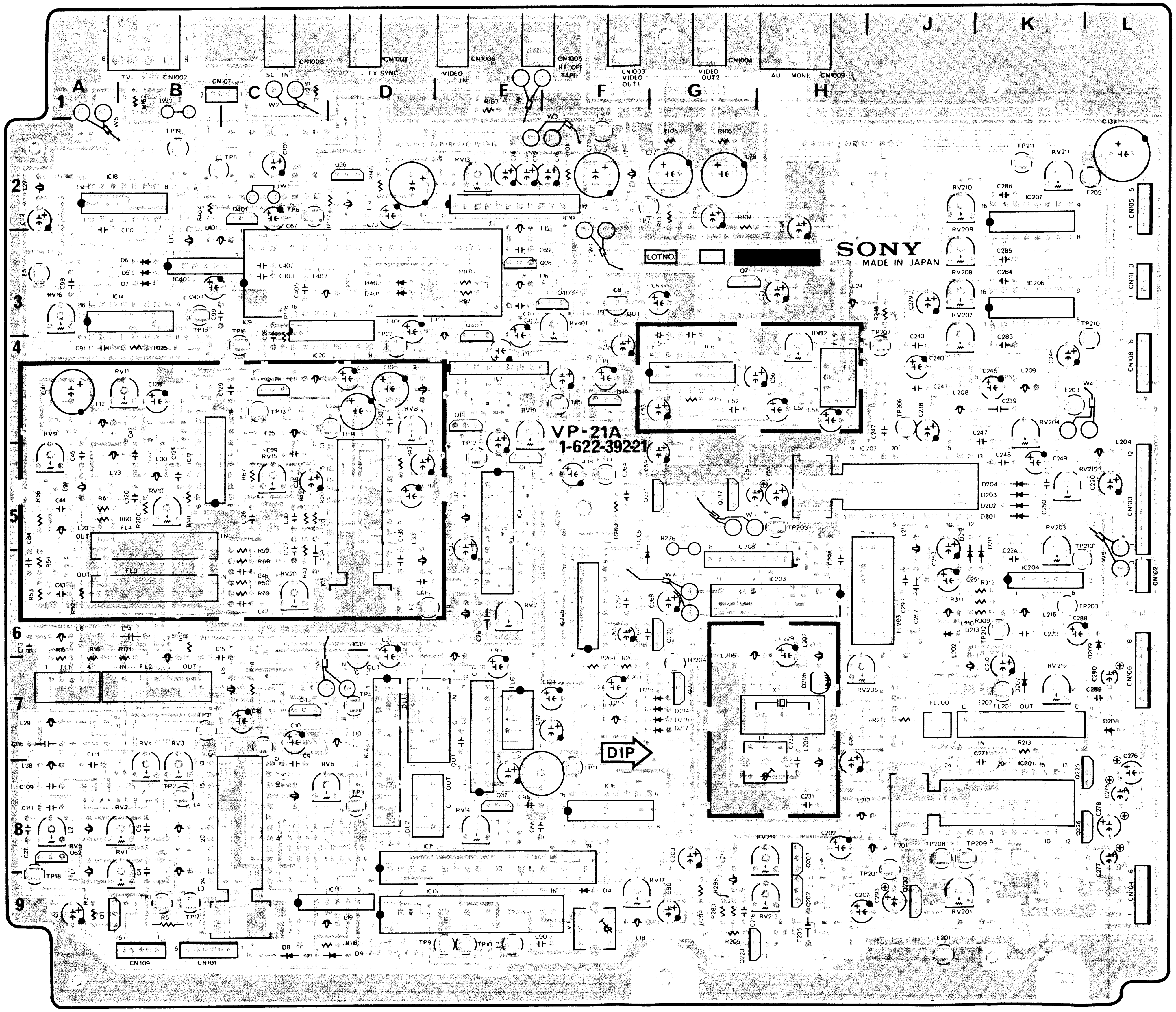
VP-21A:Y/C DEMODULAOR (COMPONENT SIDE)

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

VP-21A (1-622-392-21)-C

CN101	B-9
CN102	L-6
CN103	L-5
CN104	L-9
CN105	L-2
CN106	L-7
CN107	B-1
CN108	L-4
CN109	B-9
CN111	L-3
CN1002	B-1
CN1003	F-1
CN1004	G-1
CN1005	E-1
CN1006	E-1
CN1007	D-1
CN1008	C-1
CN1009	H-1
D4	F-9
D5	B-3
D6	B-3
D7	B-3
D8	C-9
D9	D-9
D201	K-5
D202	K-5
D203	K-5
D204	K-5
D205	F-6
D206	H-7
D207	K-7
D208	L-7
D209	L-7
D211	K-6
D212	J-6
D213	J-6
D214	G-7
D215	G-7
D216	G-7
D217	G-7
D401	D-3
D402	D-3
DL1	D-7
DL2	D-8
E1	C-7
E2	D-6
E3	F-2
E4	E-9
E5	A-3
E201	J-9
E202	K-7
E203	K-4
E204	F-5
E205	L-2
FL1	A-7
FL2	B-7
FL3	B-6
FL4	B-5
FL5	H-4
FL6	E-7
FL200	J-7
FL203	J-6
FL201	K-7
IC1	C-8
IC2	D-7
IC3	D-7
IC4	E-5
IC5	D-5
IC6	G-4
IC7	E-4
IC8	F-3
IC9	D-3
IC10	E-2
IC11	C-9
IC12	B-5
IC13	E-9
IC14	A-3
IC15	E-9
IC16	F-8
IC17	E-7
IC18	A-2
IC20	D-3
IC201	K-8
IC202	J-5
IC203	H-6
IC204	K-6
IC205	F-6
IC206	K-3
IC207	K-3
IC208	G-6
IC401	B-3
LV1	F-9
LV2	E-8
Q1	A-9
Q7	G-3
Q18	E-4
Q26	D-2
Q28	E-3
Q37	E-8
Q43	C-7
Q47	C-4
Q49	F-4
Q62	E-5
Q202	H-9
Q203	H-9
Q217	G-5
Q220	G-6
Q221	G-7
Q223	G-9
Q225	L-8
Q226	L-8
Q230	J-9
Q231	G-5
Q401	C-2
Q402	E-4
Q403	F-3
RV1	A-9
RV2	A-8
RV3	B-8
RV4	B-8
RV5	A-8
RV6	C-8
RV7	E-6
RV8	D-4
RV9	A-5
RV10	B-5
RV11	B-4
RV12	H-4
RV13	E-2
RV14	E-8
RV15	C-5
RV16	A-3
RV17	F-9
RV19	E-5
RV20	C-6
RV201	J-9
RV203	K-6
RV204	K-5
RV205	H-7
RV207	J-4
RV208	J-3
RV209	J-3
RV210	J-2
RV211	K-2
RV212	K-7
RV213	H-9
RV214	H-9
RV215	K-5
RV401	F-3
T1	H-8
TP1	B-9
TP2	B-8
TP3	D-8
TP4	D-7
TP5	F-4
TP6	C-2
TP7	F-2
TP8	B-2
TP9	E-9
TP10	E-9
TP11	F-8
TP12	E-5
TP13	C-4
TP14	D-4
TP15	B-3
TP16	C-4
TP17	B-9
TP18	A-9
TP19	B-2
TP21	B-7
TP22	D-4
TP201	J-9
TP203	K-6
TP204	G-7
TP205	H-5
TP206	J-4
TP207	J-4
TP208	J-9
TP209	J-9
TP210	L-4
TP211	K-2
TP212	K-6
TP213	K-6
X1	H-7

Q217	G-5
Q220	G-6
Q221	G-7
Q223	G-9
Q225	L-8
Q226	L-8
Q230	J-9
Q231	G-5
Q401	C-2
Q402	E-4
Q403	F-3
RV1	A-9
RV2	A-8
RV3	B-8
RV4	B-8
RV5	A-8
RV6	C-8
RV7	E-6
RV8	D-4
RV9	A-5
RV10	B-5
RV11	B-4
RV12	H-4
RV13	E-2
RV14	E-8
RV15	C-5
RV16	A-3
RV17	F-9
RV19	E-5
RV20	C-6
RV201	J-9
RV203	K-6
RV204	K-5
RV205	H-7
RV207	J-4
RV208	J-3
RV209	J-3
RV210	J-2
RV211	K-2
RV212	K-7
RV213	H-9
RV214	H-9
RV215	K-5
RV401	F-3
T1	H-8
TP1	B-9
TP2	B-8
TP3	D-8
TP4	D-7
TP5	F-4
TP6	C-2
TP7	F-2
TP8	B-2
TP9	E-9
TP10	E-9
TP11	F-8
TP12	E-5
TP13	C-4
TP14	D-4
TP15	B-3
TP16	C-4
TP17	B-9
TP18	A-9
TP19	B-2
TP21	B-7
TP22	D-4
TP201	J-9
TP203	K-6
TP204	G-7
TP205	H-5
TP206	J-4
TP207	J-4
TP208	J-9
TP209	J-9
TP210	L-4
TP211	K-2
TP212	K-6
TP213	K-6
X1	H-7


A
B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
5
6
7
8
9
TV
CN1002
CN107
SC IN
CN1008
1x SYNC
CN1007
VIDEO IN
CN1006
CN1005 RF OFF TAPE
CN1003 VIDEO OUT1
VIDEO OUT2
CN1004
AU MONI
CN1009
SONY
MADE IN JAPAN
LOT NO.
VP-21A
1-622-39221
DIP
CN105
CN111
CN108
CN103
CN102
CN106
CN104
CN109
CN101

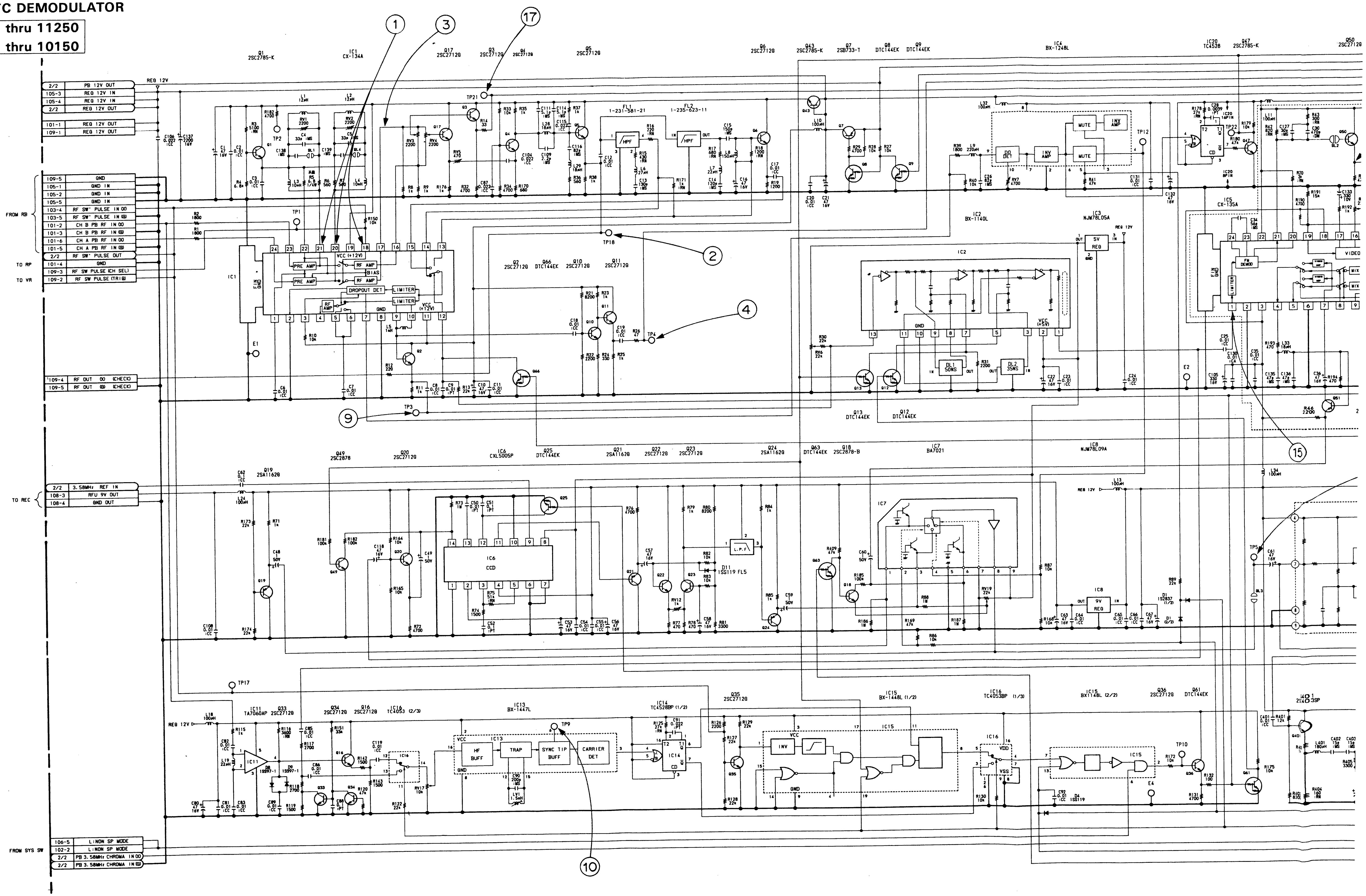
VP-21A

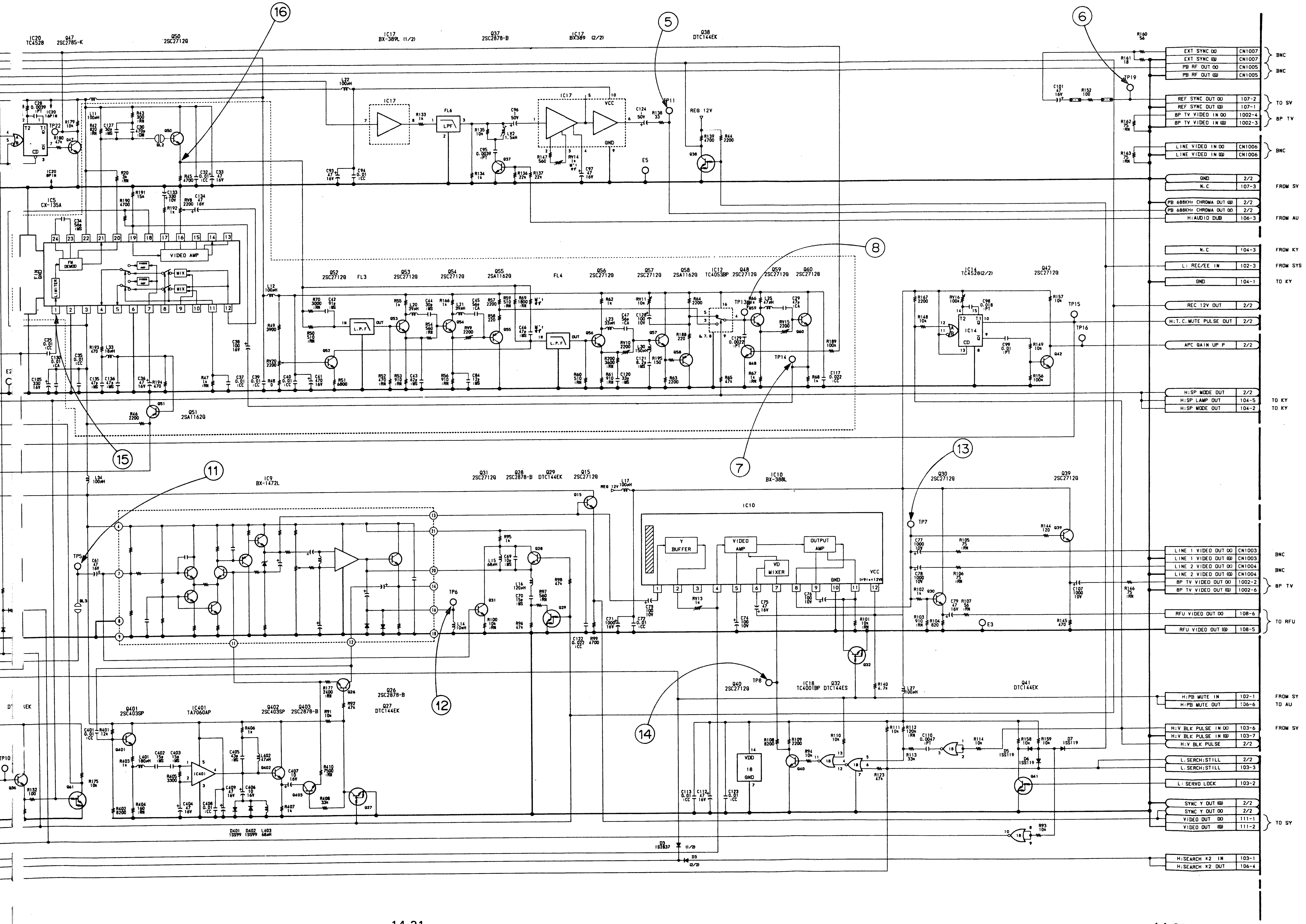
-COMPONENT SIDE-

1-622-392-21
VP-9000

VP-21A(1/2): Y/C DEMODULATOR

UC; S/N 10251 thru 11250
J; S/N 10051 thru 10150


2/2 PB 12V OUT
105-3 REG 12V IN
105-4 REG 12V IN
2/2 REG 12V OUT
101-1 REG 12V OUT
109-1 REG 12V OUT
FROM RB
109-5 GND
105-1 GND IN
105-2 GND IN
105-5 GND IN
103-4 RF SW' PULSE IN (X)
103-5 RF SW' PULSE IN (Q)
101-2 CH B PB RF IN (X)
101-3 CH B PB RF IN (Q)
101-6 CH A PB RF IN (X)
101-5 CH A PB RF IN (Q)
2/2 RF SW' PULSE OUT
TO RP
101-4 GND
109-3 RF SW PULSE (CH SEL)
TO VR
109-2 RF SW PULSE (TRIG)
109-4 RF OUT (X) (CHECK)
109-5 RF OUT (Q) (CHECK)
TO REC
2/2 3.58MHz REF IN
108-3 RFU 9V OUT
108-4 GND OUT
FROM SYS SW
106-5 L:NON SP MODE
102-2 L:NON SP MODE
2/2 PB 3.58MHz CHROMA IN (X)
2/2 PB 3.58MHz CHROMA IN (Q)
REG 12V
C106 0.022 :CC
C137 2200 16V
R2 1800
R1 1800
①
③
⑰
②
④
⑨
⑩
⑮
Q1 2SC2785-K
IC1 CX-134A
Q17 2SC2712G
Q3 2SC2712G
Q4 2SC2712G
Q5 2SC2712G
Q6 2SC2712G
Q43 2SC2785-K
Q7 2SB733-T
Q8 DTC144EK
Q9 DTC144EK
IC4 BX-1248L
IC20 TC4528
Q47 2SC2785-K
Q50 2SC2712G
FL1 1-231-581-21
FL2 1-235-623-11
HPF
PRE AMP
RF AMP
VCC (+12V)
BIAS
DROPOUT DET
LIMITER
RF AMP
GND
VCC (+12V)
TP1
TP2
TP3
TP4
TP18
TP21
TP12
TP22
E1
E2
Q2 2SC2712G
Q66 DTC144EK
Q10 2SC2712G
Q11 2SC2712G
IC2 BX-1140L
IC3 NJM78L05A
5V REG
REG 12V
DL1 50NS
DL2 35NS
VCC (+5V)
Q13 DTC144EK
Q12 DTC144EK
DO DET
INV AMP
MUTE
INV AMP
MUTE
IC5 CX-135A
FM DEMOD
LIMITER
VIDEO
MIX
MIX
Q51
Q49 2SC2878
Q20 2SC2712G
IC6 CXL5005P
Q25 DTC144EK
Q21 2SA1162G
Q22 2SC2712G
Q23 2SC2712G
Q24 2SA1162G
Q63 DTC144EK
Q18 2SC2878-B
IC7 BA7021
IC8 NJM78L09A
Q19 2SA1162G
IC6 CCD
L.P.F.
D11 1SS119 FLS
9V REG
D1 1S2837 (1/2)
TP5
L34 100μH
L13 100μH
TP17
REG 12V
IC11 TA7060AP
Q33 2SC2712G
Q34 2SC2712G
Q16 2SC2712G
IC16 TC4053 (2/3)
IC13 BX-1447L
TP9
IC14 TC4528BP (1/2)
Q35 2SC2712G
IC15 BX-1448L (1/2)
IC16 TC4053BP (1/3)
IC15 BX1148L (2/2)
Q36 2SC2712G
Q61 DTC144EK
VCC
HF BUFF
TRAP
SYNC TIP BUFF
CARRIER DET
GND
INV
VCC
GND
VDD
VSS
TP10
E4
D4 1SS119
Q401
L401 180μH

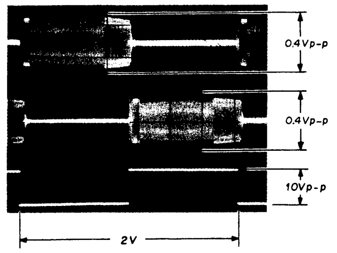

IC20 TC4528
Q47 2SC2785-K
Q50 2SC2712G
IC17 BX-389L (1/2)
Q37 2SC2878-B
IC17 BX389 (2/2)
Q38 DTC144EK
IC5 CX-135A
FM DEMOD
VIDEO AMP
MIX
LIMITER
L.P.F
FL3
FL4
FL6
LPF
VCC
GND
REG 12V
TP11
TP13
TP14
TP15
TP16
TP19
TP22
TP5
TP6
TP7
TP8
E5
E3
Q52 2SC2712G
Q53 2SC2712G
Q54 2SC2712G
Q55 2SA1162G
Q56 2SC2712G
Q57 2SC2712G
Q58 2SA1162G
IC12 TC4053BP
Q48 2SC2712G
Q59 2SC2712G
Q60 2SC2712G
Q51 2SA1162G
IC14 TC4528(2/2)
Q42 2SC2712G
IC9 BX-1472L
Q31 2SC2712G
Q28 2SC2878-B
Q29 DTC144EK
Q15 2SC2712G
IC10 BX-388L
Y BUFFER
VIDEO AMP
VD MIXER
OUTPUT AMP
Q30 2SC2712G
Q39 2SC2712G
Q401 2SC403SP
IC401 TA7060AP
Q402 2SC403SP
Q403 2SC2878-B
Q26 2SC2878-B
Q27 DTC144EK
Q40 2SC2712G
IC18 TC4001BP
Q32 DTC144ES
Q41 DTC144EK
D401 1SS99
D402 1SS99
L403 68µH
D3 1S2837
D5 1SS119
D6 1SS119
D7 1SS119
⑤
⑥
⑦
⑧
⑪
⑫
⑬
⑭
⑮
⑯
EXT SYNC (X) CN1007
EXT SYNC (G) CN1007
BNC
PB RF OUT (X) CN1005
PB RF OUT (G) CN1005
BNC
REF SYNC OUT (X) 107-2
REF SYNC OUT (G) 107-1
TO SV
8P TV VIDEO IN (X) 1002-4
8P TV VIDEO IN (G) 1002-3
8P TV
LINE VIDEO IN (X) CN1006
LINE VIDEO IN (G) CN1006
BNC
GND 2/2
N.C 107-3
FROM SV
PB 688KHz CHROMA OUT (G) 2/2
PB 688KHz CHROMA OUT (X) 2/2
H:AUDIO DUB 106-3
FROM AU
N.C 104-3
FROM KY
L: REC/EE IN 102-3
FROM SYS
GND 104-1
TO KY
REC 12V OUT 2/2
H:T.C.MUTE PULSE OUT 2/2
APC GAIN UP P 2/2
H:SP MODE OUT 2/2
H:SP LAMP OUT 104-5
TO KY
H:SP MODE OUT 104-2
TO KY
LINE 1 VIDEO OUT (X) CN1003
LINE 1 VIDEO OUT (G) CN1003
BNC
LINE 2 VIDEO OUT (X) CN1004
LINE 2 VIDEO OUT (G) CN1004
BNC
8P TV VIDEO OUT (X) 1002-2
8P TV VIDEO OUT (G) 1002-6
8P TV
RFU VIDEO OUT (X) 108-6
RFU VIDEO OUT (G) 108-5
TO RFU
H:PB MUTE IN 102-1
FROM SY
H:PB MUTE OUT 106-6
TO AU
H:V BLK PULSE IN (X) 103-6
H:V BLK PULSE IN (G) 103-7
FROM SV
H:V BLK PULSE 2/2
L.SERCH;STILL 2/2
L.SERCH;STILL 103-3
L: SERVO LOCK 103-2
SYNC Y OUT (G) 2/2
SYNC Y OUT (X) 2/2
VIDEO OUT (X) 111-1
VIDEO OUT (G) 111-2
TO SY
H:SEARCH ×2 IN 103-1
H:SEARCH ×2 OUT 106-4

VP-21A (1/2)
1-622-392-22
VP-9000

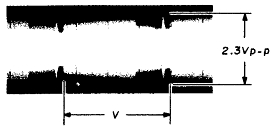
① IC1 20PIN

21PIN

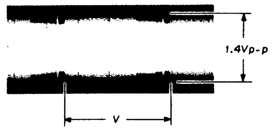
18PIN



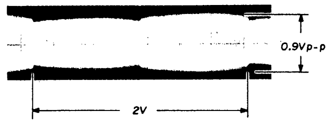
② TP18



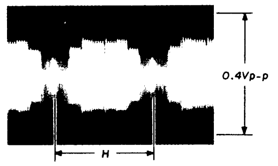
③ RV3 CENTER



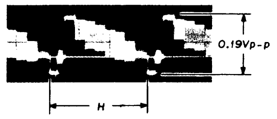
④ TP4



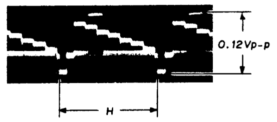
⑤ TP11



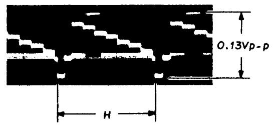
⑥ TP19



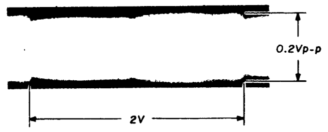
⑦ TP14



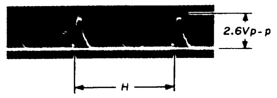
⑧ TP13



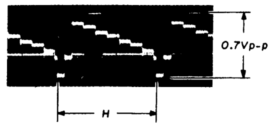
⑨ TP3



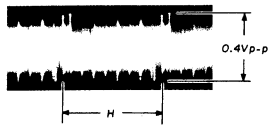
⑩ TP9



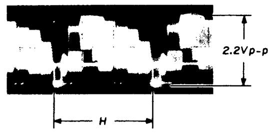
⑪ TP5



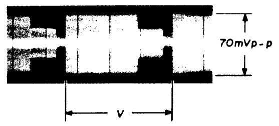
⑫ TP6



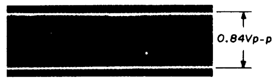
⑬ TP7



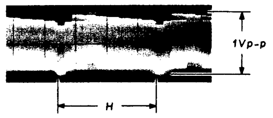
⑭ TP8



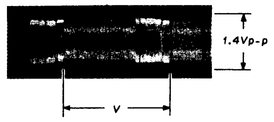
⑮ IC5 1PIN



⑯ Q50 EMITTER

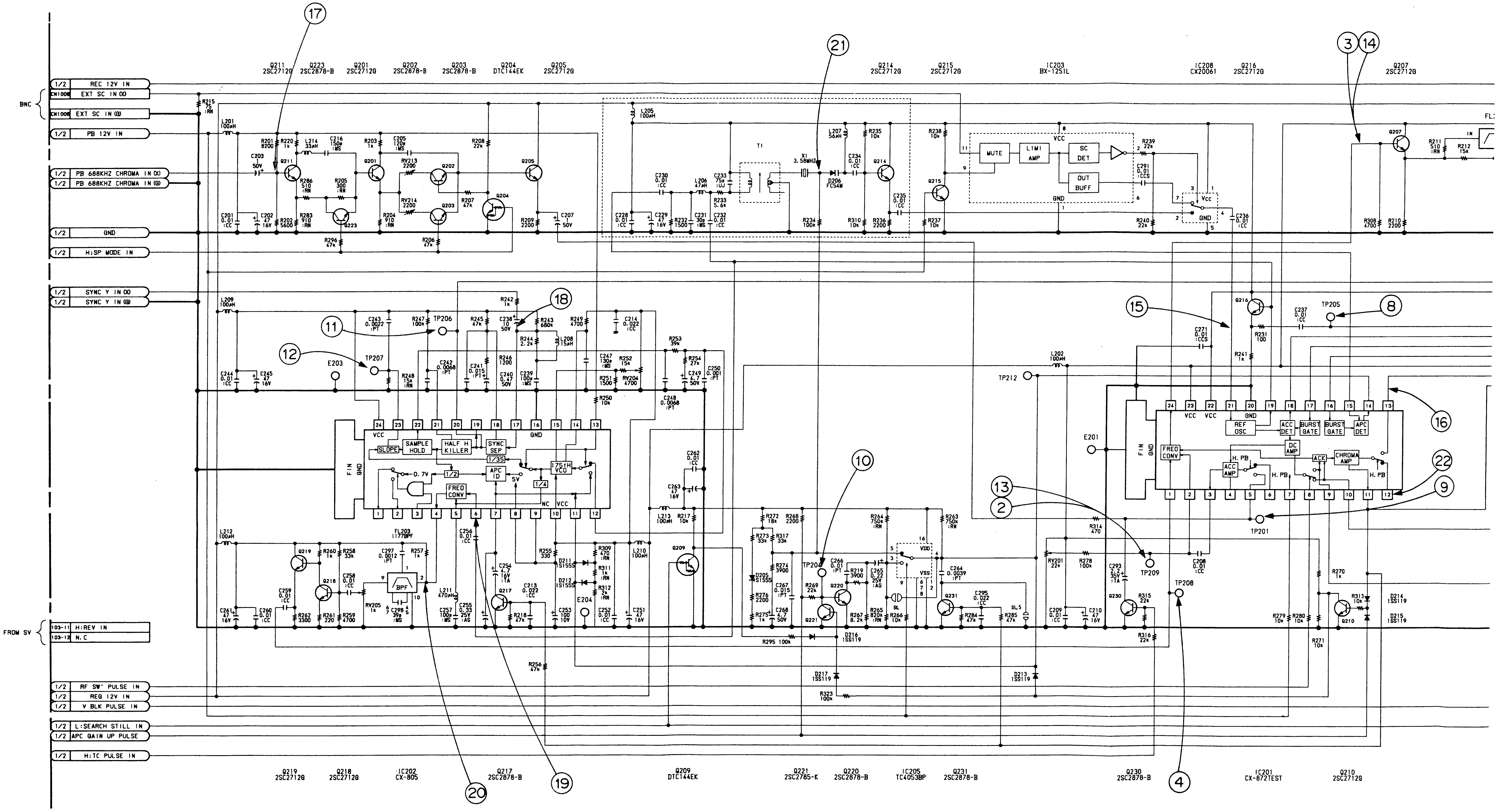


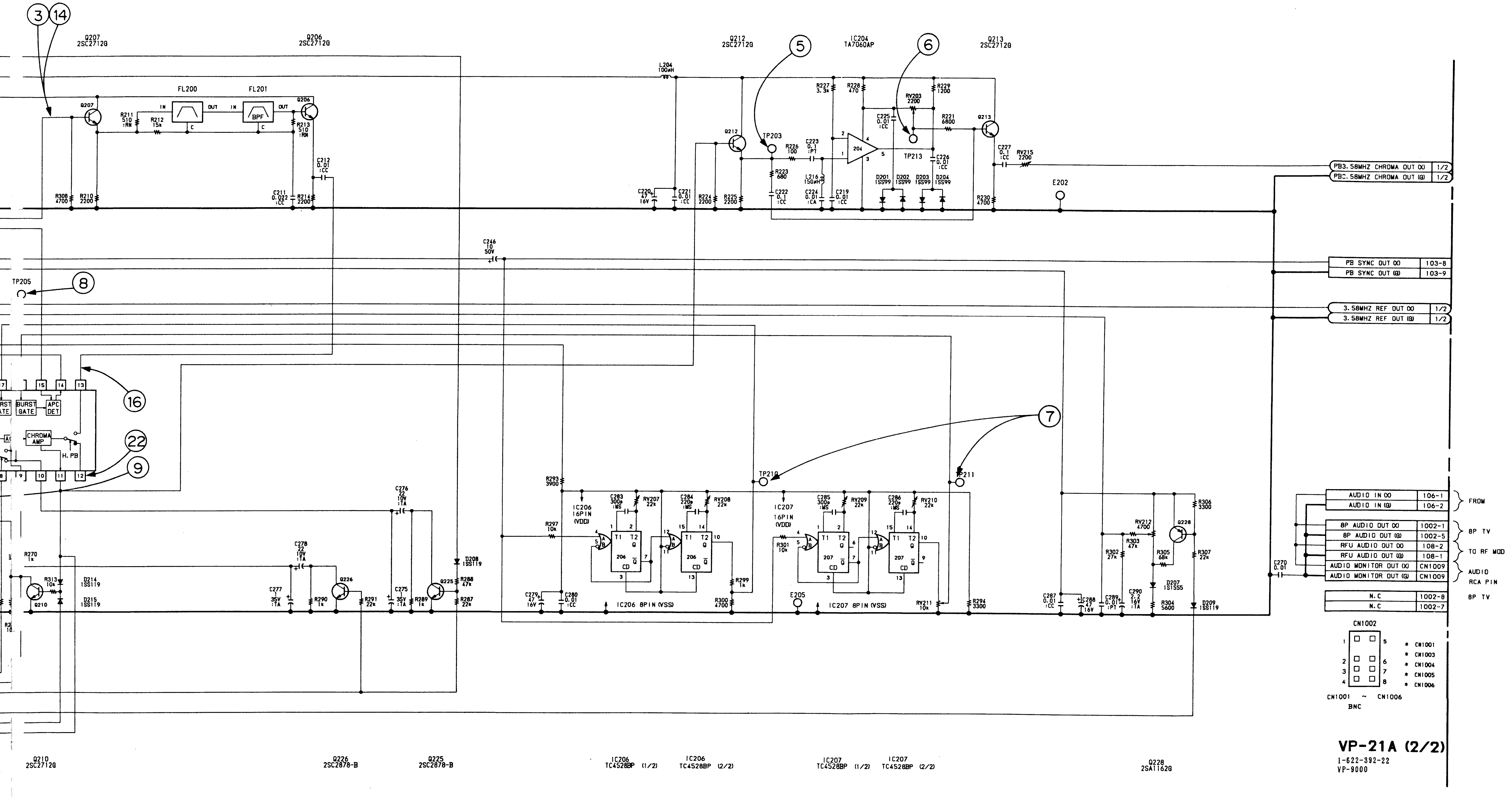
⑰ TP21



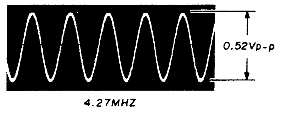
VP-21A(2/2): Y/C DEMODULATOR

UC; S/N 10251 thru 11250
J; S/N 10051 thru 10150

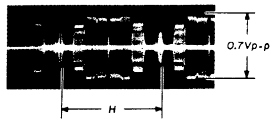

BNC
1/2 REC 12V IN
CN1008 EXT SC IN (1)
CN1008 EXT SC IN (2)
1/2 PB 12V IN
1/2 PB 688KHZ CHROMA IN (1)
1/2 PB 688KHZ CHROMA IN (2)
1/2 GND
1/2 H:SP MODE IN
1/2 SYNC Y IN (1)
1/2 SYNC Y IN (2)
FROM SV
103-11 H:REV IN
103-12 N.C
1/2 RF SW' PULSE IN
1/2 REC 12V IN
1/2 V BLK PULSE IN
1/2 L:SEARCH STILL IN
1/2 APC GAIN UP PULSE
1/2 H:TC PULSE IN
Q211 2SC2712G
Q223 2SC2878-B
Q201 2SC2712G
Q202 2SC2878-B
Q203 2SC2878-B
Q204 DTC144EK
Q205 2SC2712G
Q214 2SC2712G
Q215 2SC2712G
IC203 BX-1251L
IC208 CX20061
Q216 2SC2712G
Q207 2SC2712G
MUTE
LIMI AMP
SC DET
OUT BUFF
VCC
GND
T1
X1 3.58MHZ
D206 FC54M
SLOPE
SAMPLE HOLD
HALF H KILLER
SYNC SEP
1/35
175fH VCO
APC ID
1/2
1/4
FREQ CONV
0.7V
5V
NC
FIN GND
REF OSC
ACC DET
BURST GATE
APC DET
DC AMP
ACK
CHROMA AMP
ACC AMP
H. PB
VCC VCC
BPF
FL203 1177BPF
TP206
TP207
E203
E204
TP212
E201
TP205
TP201
TP209
TP208
TP204
SL
SL5
16 VDD
VSS
Q219 2SC2712G
Q218 2SC2712G
IC202 CX-805
Q217 2SC2878-B
Q209 DTC144EK
Q221 2SC2785-K
Q220 2SC2878-B
IC205 TC4053BP
Q231 2SC2878-B
Q230 2SC2878-B
IC201 CX-872TEST
Q210 2SC2712G
D211 1S1555
D212 1S1555
D205 1S1555
D216 1SS119
D217 1SS119
D213 1SS119
D214 1SS119
D215 1SS119
R295 100k
R323 100k
R256 47k
⑰
⑱
⑪
⑫
㉑
⑩
③ ⑭
⑮
⑧
⑯
㉒
⑨
⑬
②
④
⑳
⑲


③ ⑭
Q207 2SC2712G
Q206 2SC2712G
FL200
FL201
IN OUT
BPF
R211 510 :RN
R212 15k
R213 510 :RN
C212 0.01 :CC
C211 0.022 :CC
R214 2200
R308 4700
R210 2200
L204 100μH
Q212 2SC2712G
⑤
IC204 TA7060AP
⑥
Q213 2SC2712G
TP203
R226 100
C223 0.1 :P1
R227 3.3k
R228 470
R229 1200
RV203 2200
C225 0.01 :CC
R221 6800
TP213
C226 0.01 :CC
D201 1SS99
D202 1SS99
D203 1SS99
D204 1SS99
L216 150μH
C224 0.01 :CA
C219 0.01 :CC
R223 680
C222 0.1 :CC
C220 47 16V
C221 0.01 :CC
R224 2200
R225 2200
C227 0.1 :CC
RV215 2200
R230 4700
E202
PB3.58MHZ CHROMA OUT (X) 1/2
PB3.58MHZ CHROMA OUT (G) 1/2
PB SYNC OUT (X) 103-8
PB SYNC OUT (G) 103-9
3.58MHZ REF OUT (X) 1/2
3.58MHZ REF OUT (G) 1/2
C246 10 50V
TP205
⑧
⑯
㉒
⑨
BURST GATE
APC DET
CHROMA AMP
H. PB
⑦
TP210
TP211
R293 3900
R297 10k
IC206 16PIN (VDD)
C283 300p :MS
RV207 22k
C284 220p :MS
RV208 22k
IC207 16PIN (VDD)
C285 300p :MS
RV209 22k
C286 220p :MS
RV210 22k
R301 10k
T1 T2 Q CD
206
207
R299 1k
R300 4700
C279 47 16V
C280 0.01 :CC
IC206 8PIN (VSS)
E205
IC207 8PIN (VSS)
RV211 10k
R294 3300
C276 22 10V :TA
C278 22 10V :TA
C277 35V :TA
C275 35V :TA
R290 1k
R291 22k
R289 1k
R288 47k
R287 22k
D208 1SS119
Q226
Q225
R270 1k
R313 10k
D214 1SS119
D215 1SS119
Q210
RV212 4700
R306 3300
Q228
R302 27k
R303 47k
R305 68k
R307 22k
D207 1S1555
C287 0.01 :CC
C288 47 16V
C289 0.01 :P1
C290 2.2 16V :TA
R304 5600
D209 1SS119
C270 0.01
AUDIO IN (X) 106-1
AUDIO IN (G) 106-2
FROM
8P AUDIO OUT (X) 1002-1
8P AUDIO OUT (G) 1002-5
8P TV
RFU AUDIO OUT (X) 108-2
RFU AUDIO OUT (G) 108-1
TO RF MOD
AUDIO MONITOR OUT (X) CN1009
AUDIO MONITOR OUT (G) CN1009
AUDIO RCA PIN
N.C 1002-8
N.C 1002-7
8P TV
CN1002
1 2 3 4 5 6 7 8
* CN1001
* CN1003
* CN1004
* CN1005
* CN1006
CN1001 ~ CN1006 BNC
Q210 2SC2712G
Q226 2SC2878-B
Q225 2SC2878-B
IC206 TC4528BP (1/2)
IC206 TC4528BP (2/2)
IC207 TC4528BP (1/2)
IC207 TC4528BP (2/2)
Q228 2SA1162G
VP-21A (2/2)
1-622-392-22
VP-9000

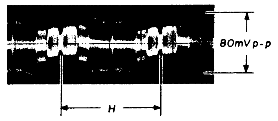
④ TP208
PB



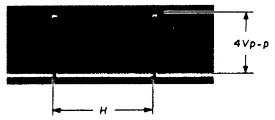
⑤ TP203



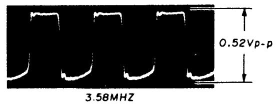
⑥ TP213



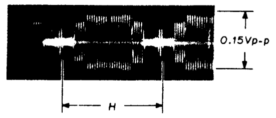
⑦ TP210
TP211



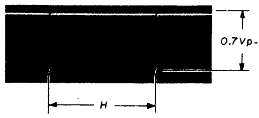
⑧ TP205



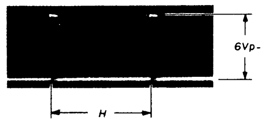
⑨ TP201



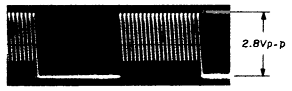
⑩ TP204



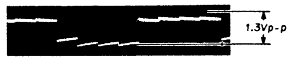
⑪ TP206



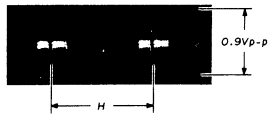
⑫ TP207



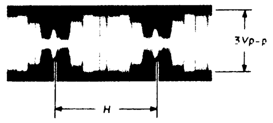
IC202
22PIN



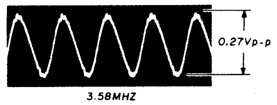
⑬ TP209
PB



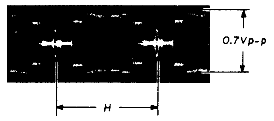
⑭ IC201
24PIN
PB



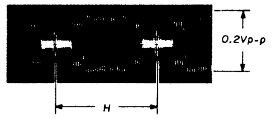
⑮ IC201
21PIN



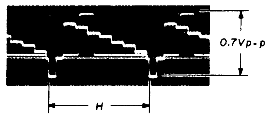
⑯ IC201
13PIN



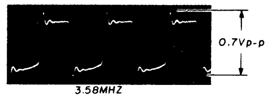
⑰ Q211
BASE



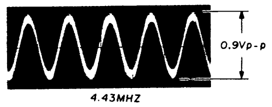
⑱ IC202
17PIN



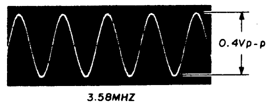
⑲ IC202
6PIN



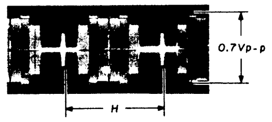
⑳ IC202
4PIN



㉑ X1



㉒ IC201
12PIN



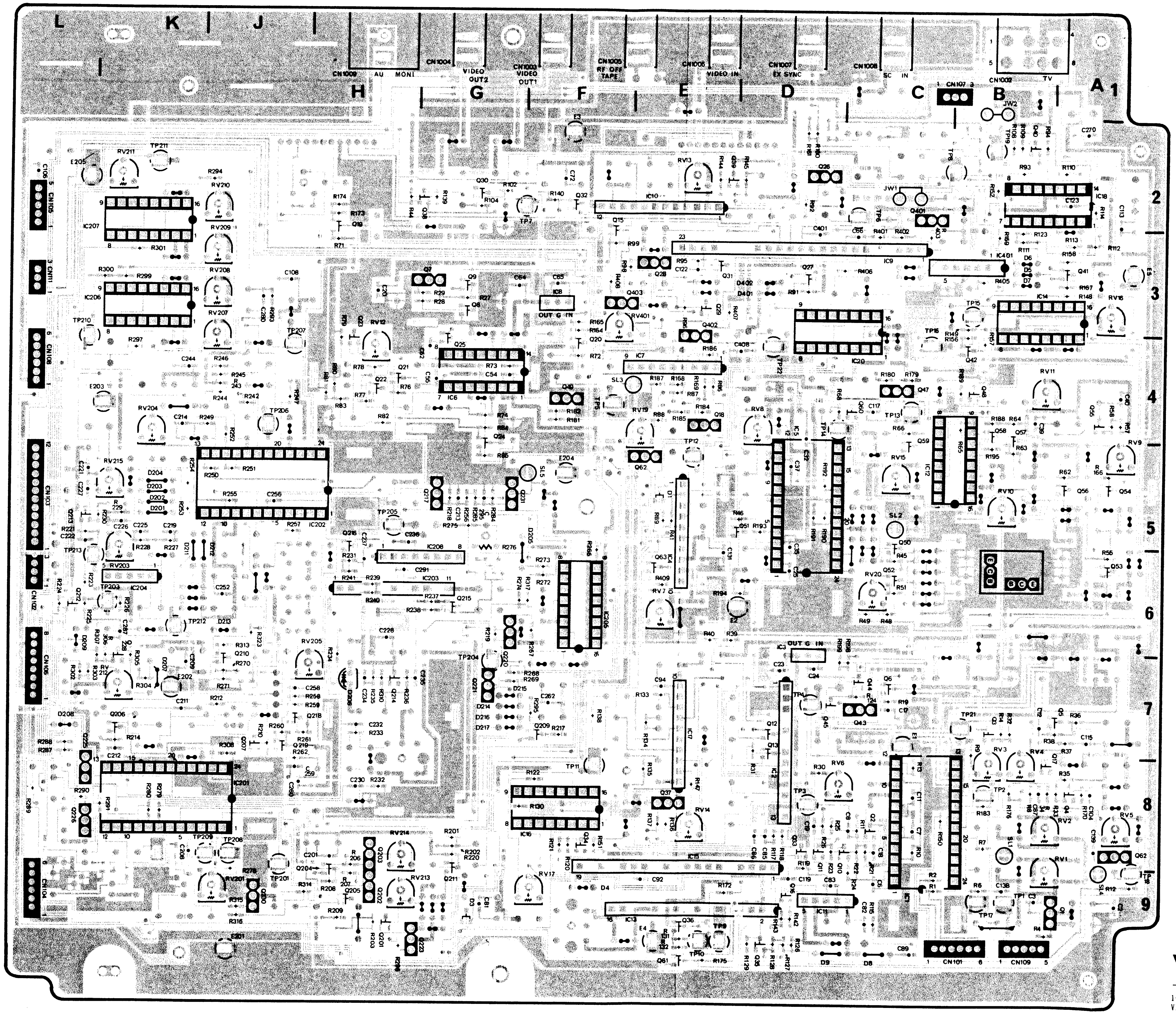
VP-21A : Y/C DEMODULATOR (SOLDERING SIDE)

UC; S/N 10251 thru 11250
J; S/N 10051 thru 10150

VP-21A (1-622-392-22)-S

CN101	B-9
CN102	L-6
CN103	L-5
CN104	L-9
CN105	L-2
CN106	L-7
CN107	B-1
CN108	L-4
CN109	B-9
CN111	L-3
CN1002	B-1
CN1003	F-1
CN1004	G-1
CN1005	F-1
CN1006	E-1
CN1007	D-1
CN1008	C-1
CN1009	H-1
D1	E-5
D3	G-9
D4	F-9
D5	B-3
D6	B-3
D7	B-3
D8	C-9
D9	D-9
D201	K-5
D202	K-5
D203	K-5
D204	K-5
D205	G-6
D206	H-7
D207	K-7
D208	L-7
D209	L-6
D211	K-6
D212	J-6
D213	J-6
D214	G-7
D215	G-7
D216	G-7
D217	G-7
D401	D-3
D402	D-3
E1	C-7
E2	D-6
E3	F-2
E4	E-9
E5	A-3
E201	J-9
E202	K-7
E203	K-4
E204	F-5
E205	L-2
IC1	C-8
IC2	D-7
IC3	D-6
IC4	E-5
IC5	D-5
IC6	G-4
IC7	E-4
IC8	F-3
IC9	D-3
IC10	E-2
IC11	D-9
IC12	B-5
IC13	E-9
IC14	B-3
IC15	E-8
IC16	F-8
IC17	E-7
IC18	B-2
IC20	C-4
IC201	K-8
IC202	J-5
IC203	H-6
IC204	K-6
IC205	F-6
IC206	K-3
IC207	K-2
IC208	G-6
IC401	B-3
Q1	A-9
Q2	C-8
Q3	B-7
Q4	A-8
Q5	A-7
Q6	C-7
Q7	G-3
Q8	G-3
Q9	G-3
Q10	C-8
Q11	D-8
Q12	D-7
Q13	D-7
Q15	F-2
Q16	D-9
Q17	B-8
Q18	E-4
Q19	H-2
Q20	F-4
Q21	H-4
Q22	H-4
Q23	H-4
Q24	G-5
Q25	G-4
Q26	D-2
Q27	D-3
Q28	E-3
Q29	E-3
Q30	G-2
Q31	E-3
Q32	F-2
Q33	D-8
Q34	F-8
Q35	D-9
Q36	E-9
Q37	E-8
Q38	G-2
Q39	E-2
Q40	B-2
Q41	A-3
Q42	B-4
Q43	C-7
Q44	C-7
Q45	D-7
Q47	C-4
Q48	B-4
Q49	F-4
Q50	C-6
Q51	D-5
Q52	C-6
Q53	A-6
Q54	A-5
Q55	A-4
Q56	A-5
Q57	B-4
Q58	B-4
Q59	C-5
Q60	C-4
Q61	E-9
Q62	E-5
Q63	E-6
Q201	H-9
Q202	H-9
Q203	H-8
Q204	H-9
Q205	H-9
Q206	K-7
Q207	J-7
Q209	F-7
Q210	J-7
Q211	G-9
Q212	L-6
Q213	L-5
Q214	H-7
Q215	G-6
Q216	H-6
Q217	G-5
Q218	J-7
Q219	J-7
Q220	G-6
Q221	G-7
Q223	G-9
Q225	L-8
Q226	L-8
Q228	K-7
Q230	J-9
Q231	G-5
Q401	C-2
Q402	E-4
Q403	F-3
RV1	B-9
RV2	B-8
RV3	B-8
RV4	B-8
RV5	A-8
RV6	C-8
RV7	E-6
RV8	D-4
RV9	A-5
RV10	B-5
RV11	B-4
RV12	H-4
RV13	E-2
RV14	E-8
RV15	C-5
RV16	A-3
RV17	F-9
RV19	E-4
RV20	C-6
RV201	J-9
RV203	K-6
RV204	K-4
RV205	H-7
RV207	J-4
RV208	J-3
RV209	J-3
RV210	J-2
RV211	K-2
RV212	K-7
RV213	H-9
RV214	H-8
RV215	K-5
RV401	F-4
SL1	B-8
SL2	C-5
SL3	F-4
SL4	A-9
SL5	F-4
TP1	B-9
TP2	B-8
TP3	D-8
TP4	D-7
TP5	F-4
TP6	C-2
TP7	G-2
TP8	B-2
TP9	
TP10	
TP11	
TP12	
TP13	
TP14	
TP15	
TP16	
TP17	
TP18	
TP19	
TP21	
TP22	
TP201	
TP20	
TP20	
TP20	
TP20	
TP20	
TP20	
TP20	
TP20	
TP21	
TP21	
TP21	
TP21	

9	E-3	Q226	L-8	TP9	E-9
0	G-2	Q228	K-7	TP10	E-9
1	E-3	Q230	J-9	TP11	F-8
2	-2	Q231	G-5	TP12	E-5
3	D-8	Q401	C-2	TP13	C-4
4	F-8	Q402	E-4	TP14	D-4
5	-9	Q403	F-3	TP15	B-3
6	-9			TP16	C-4
7	E-8	RV1	B-9	TP17	B-9
8	G-2	RV2	B-8	TP18	A-9
9	-2	RV3	B-8	TP19	B-2
0	-2	RV4	B-8	TP21	B-7
1	A-3	RV5	A-8	TP22	D-4
2	B-4	RV6	C-8	TP201	J-8
3	-7	RV7	E-6	TP202	K-8
4	-7	RV8	D-4	TP203	K-6
5	D-7	RV9	A-5	TP204	G-7
7	C-4	RV10	B-5	TP205	H-5
8	-4	RV11	B-4	TP206	J-4
9	-4	RV12	H-4	TP207	J-4
0	-6	RV13	E-2	TP208	J-8
	D-5	RV14	E-8	TP209	J-8
2	-6	RV15	C-5	TP210	L-4
3	-6	RV16	A-3	TP211	K-2
	-5	RV17	F-9	TP212	K-6
5	A-4	RV19	E-4	TP213	K-6
6	-5	RV20	C-6		
7	-4	RV201	J-9		
8	-4	RV203	K-6		
9	C-5	RV204	K-4		
0	C-4	RV205	H-7		
	-9	RV207	J-4		
	-5	RV208	J-3		
	E-6	RV209	J-3		
1	H-9	RV210	J-2		
2	-9	RV211	K-2		
3	-8	RV212	K-7		
4	H-9	RV213	H-9		
5	H-9	RV214	H-8		
6	-7	RV215	K-5		
7	-7	RV401	F-4		
9	-7				
0	J-7	SL1	B-8		
1	-9	SL2	C-5		
2	-6	SL3	F-4		
3	-5	SL4	A-9		
4	H-7	SL5	F-4		
5	-6				
6	-6	TP1	B-9		
7	-5	TP2	B-8		
8	J-7	TP3	D-8		
9	-7	TP4	D-7		
0	-6	TP5	F-4		
1	-7	TP6	C-2		
3	G-9	TP7	G-2		
5	L-8	TP8	B-2		


L
K
J
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
CN1009 AU MONI
CN1004 VIDEO OUT2
CN1003 VIDEO OUT1
CN1005 RF OFF TAPE
CN1006 VIDEO IN
CN1007 EX SYNC
CN1008 SC IN
CN1002 TV
CN107
JW1
JW2
CN105
CN111
CN108
CN103
CN102
CN106
CN104
CN101
CN109
IC1
IC3
IC5
IC6
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC14
IC15
IC16
IC17
IC18
IC20
IC201
IC202
IC203
IC204
IC205
IC206
IC207
IC208
IC401
OUT G IN

VP-21A

-SOLDERING SIDE-

1-622-392-22

VP-9000

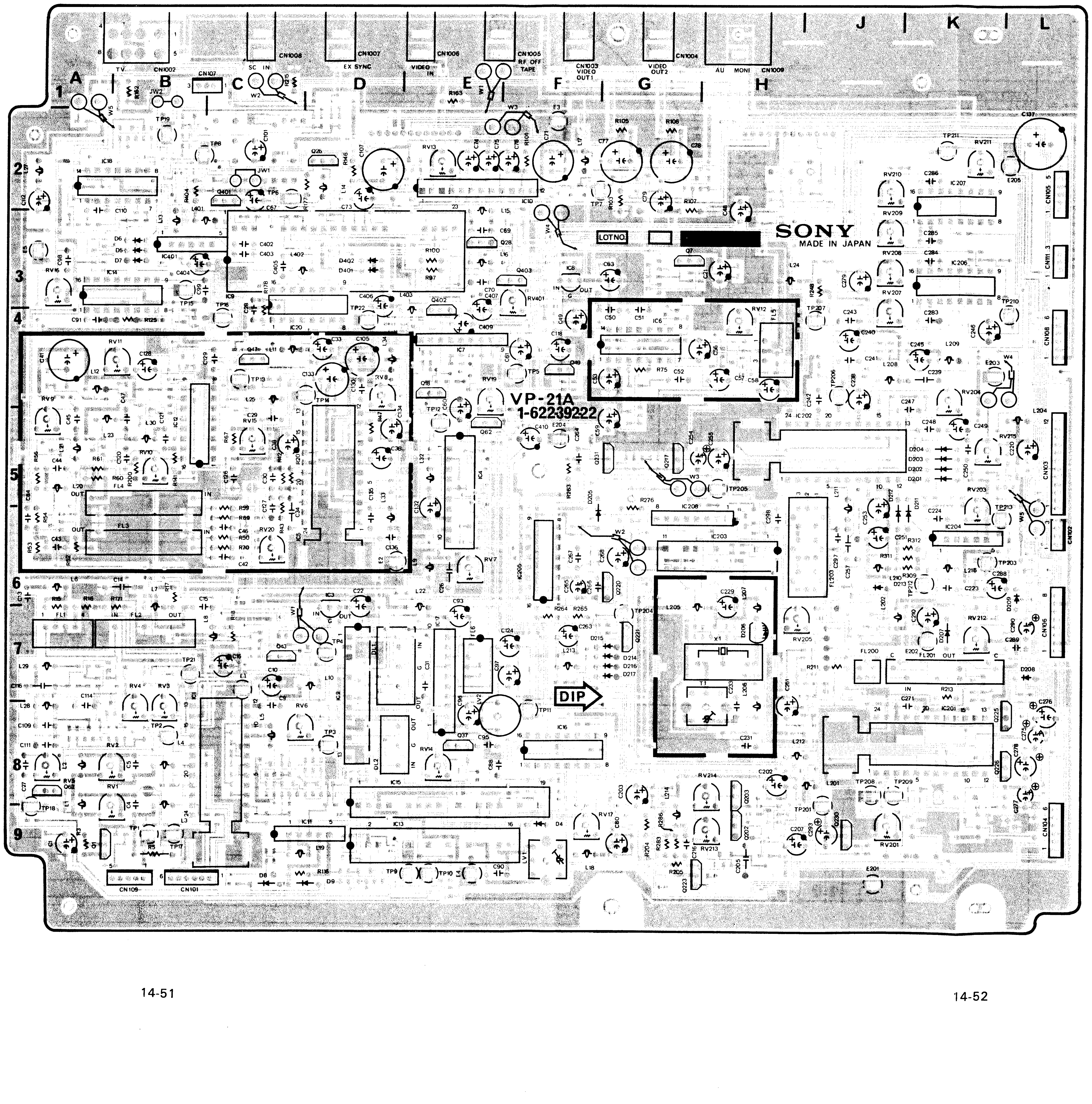
VP-21A: Y/C DEMODULATOR (COMPONENT SIDE)

UC; S/N 10251 thru 11250
J; S/N 10051 thru 10150

VP-21A (1-622-392-22)-C

CN101	B-9	FL1	A-7	Q221	G-7
CN102	L-6	FL2	B-7	Q223	H-9
CN103	L-5	FL3	B-6	Q225	L-8
CN104	L-9	FL4	B-5	Q226	L-8
CN105	L-2	FL5	H-4	Q230	J-9
CN106	L-7	FL6	E-7	Q231	G-5
CN107	B-1	FL200	J-7	Q401	C-2
CN108	L-4	FL201	K-7	Q402	E-4
CN109	B-9	FL203	J-6	Q403	F-3
CN111	L-3				
CN1002	B-1	IC1	C-8	RV1	B-9
CN1003	F-1	IC2	D-7	RV2	B-8
CN1004	G-1	IC3	D-6	RV3	B-8
CN1005	F-1	IC4	E-5	RV4	B-8
CN1006	E-1	IC5	D-5	RV5	A-8
CN1007	D-1	IC6	G-4	RV6	C-8
CN1008	C-1	IC7	E-4	RV7	E-6
CN1009	H-1	IC8	F-3	RV8	D-4
		IC9	D-3	RV9	A-5
D4	F-9	IC10	E-2	RV10	B-5
D5	B-3	IC11	D-9	RV11	B-4
D6	B-3	IC12	B-5	RV12	H-4
D7	B-3	IC13	E-9	RV13	E-2
D8	C-9	IC14	B-3	RV14	E-8
D9	D-9	IC15	E-8	RV15	C-5
D201	K-5	IC16	F-8	RV16	A-3
D202	K-5	IC17	E-7	RV17	F-9
D203	K-5	IC18	B-2	RV19	E-4
D204	K-5	IC20	C-4	RV20	C-6
D205	F-6	IC201	K-8	RV201	J-9
D207	K-7	IC202	J-5	RV203	K-6
D208	L-7	IC203	H-6	RV204	K-5
D209	L-6	IC204	K-6	RV205	J-7
D211	K 6	IC205	F-6	RV207	J-4
D212	J-6	IC206	K-3	RV208	J-3
D213	J-6	IC207	K-2	RV209	J-3
D214	G-7	IC208	G-6	RV210	J-2
D215	G-7	IC401	B-3	RV211	K-2
D216	G-7			RV212	K-7
D217	G-7	LV1	F-9	RV213	H-9
D401	D-3	LV2	E-8	RV214	H-8
D402	D-3			RV215	K-5
		Q1	A-9	RV401	F-4
DL1	D-7	Q7	G-3		
DL2	D-8	Q18	E-4	T1	H-8
		Q26	D-2		
E1	C-7	Q28	E-3	TP1	B-9
E2	D-6	Q37	E-8	TP2	B-8
E3	F-2	Q43	C-7	TP3	D-8
E4	E-9	Q47	C-4	TP4	D-7
E5	A-3	Q49	F-4	TP5	F-4
E201	J-9	Q62	E-5	TP6	C-2
E202	K-7	Q202	H-9	TP7	F-2
E203	K-4	Q203	H-8	TP8	B-2
E204	F-5	Q217	G-5	TP9	E-9
E205	L-2	Q220	G-6	TP10	E-9

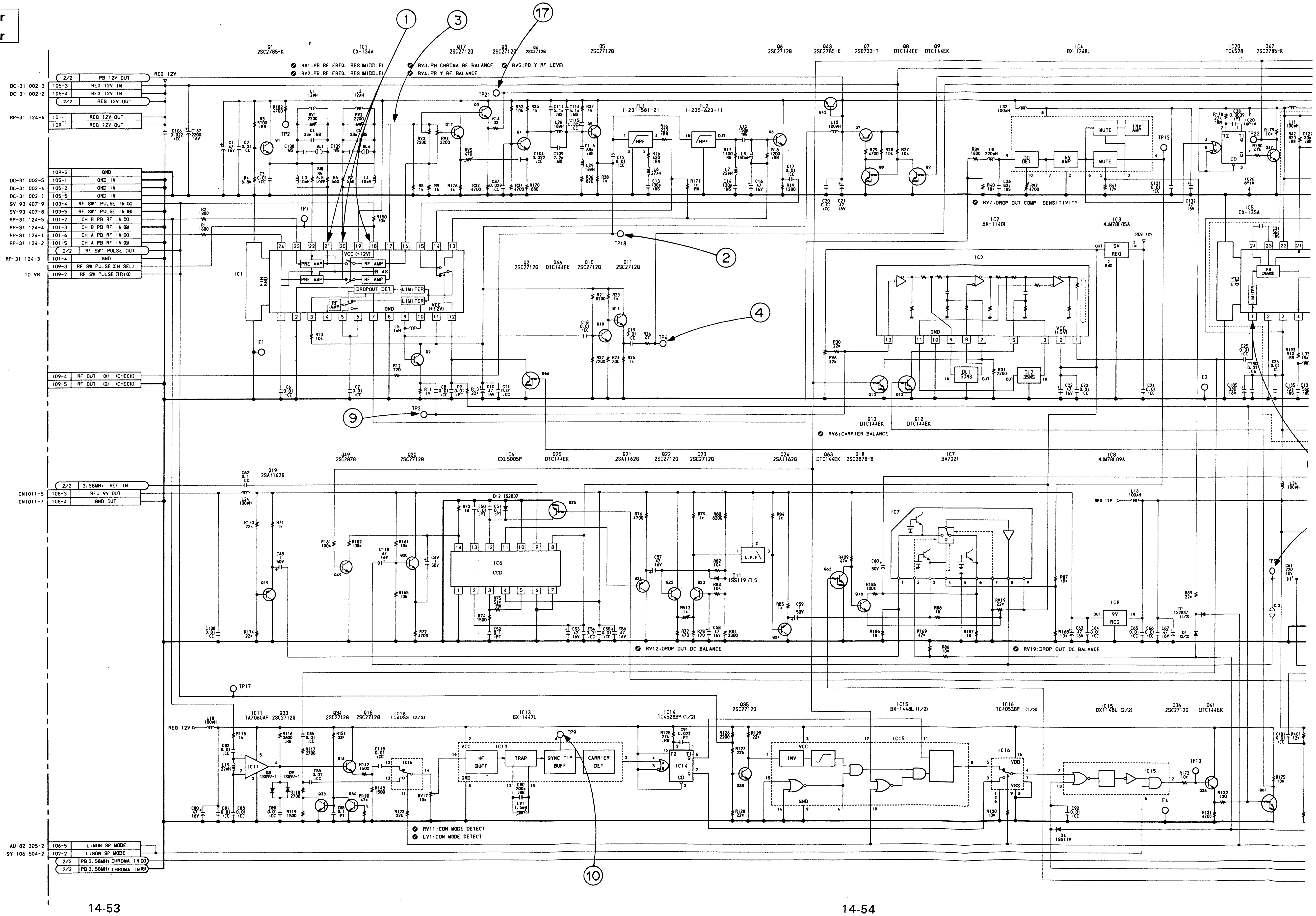
22	C				
	A-7	Q221	G-7	TP11	F-8
2	B-7	Q223	H-9	TP12	E-5
3	B-6	Q225	L-8	TP13	C-4
	B-5	Q226	L-8	TP14	D-4
5	H-4	Q230	J-9	TP15	B-3
6	E-7	Q231	G-5	TP16	C-4
20	J-7	Q401	C-2	TP17	B-9
20	K-7	Q402	E-4	TP18	A-9
203	J-6	Q403	F-3	TP19	B-2
				TP21	B-7
	C-8	RV1	B-9	TP22	D-4
	D-7	RV2	B-8	TP201	J-9
	D-6	RV3	B-8	TP202	K-8
	E-5	RV4	B-8	TP203	K-6
	D-5	RV5	A-8	TP204	G-7
	G-4	RV6	C-8	TP205	H-5
	E-4	RV7	E-6	TP206	J-4
	F-3	RV8	D-4	TP207	J-4
	D-3	RV9	A-5	TP208	J-8
0	E-2	RV10	B-5	TP209	J-8
1	D-9	RV11	B-4	TP210	L-4
2	B-5	RV12	H-4	TP211	K-2
3	E-9	RV13	E-2	TP212	K-6
4	B-3	RV14	E-8	TP213	K-6
5	E-8	RV15	C-5		
6	F-8	RV16	A-3	X1	H-7
7	E-7	RV17	F-9		
8	B-2	RV19	E-4		
0	C-4	RV20	C-6		
01	K-8	RV201	J-9		
02	J-5	RV203	K-6		
03	H-6	RV204	K-5		
04	K-6	RV205	J-7		
05	F-6	RV207	J-4		
06	K-3	RV208	J-3		
07	K-2	RV209	J-3		
08	G-6	RV210	J-2		
01	B-3	RV211	K-2		
		RV212	K-7		
	F-9	RV213	H-9		
2	E-8	RV214	H-8		
		RV215	K-5		
	A-9	RV401	F-4		
	G-3				
3	E-4	T1	H-8		
6	D-2				
3	E-3	TP1	B-9		
7	E-8	TP2	B-8		
3	C-7	TP3	D-8		
7	C-4	TP4	D-7		
9	F-4	TP5	F-4		
2	E-5	TP6	C-2		
02	H-9	TP7	F-2		
03	H-8	TP8	B-2		
17	G-5	TP9	E-9		
20	G-6	TP10	E-9		

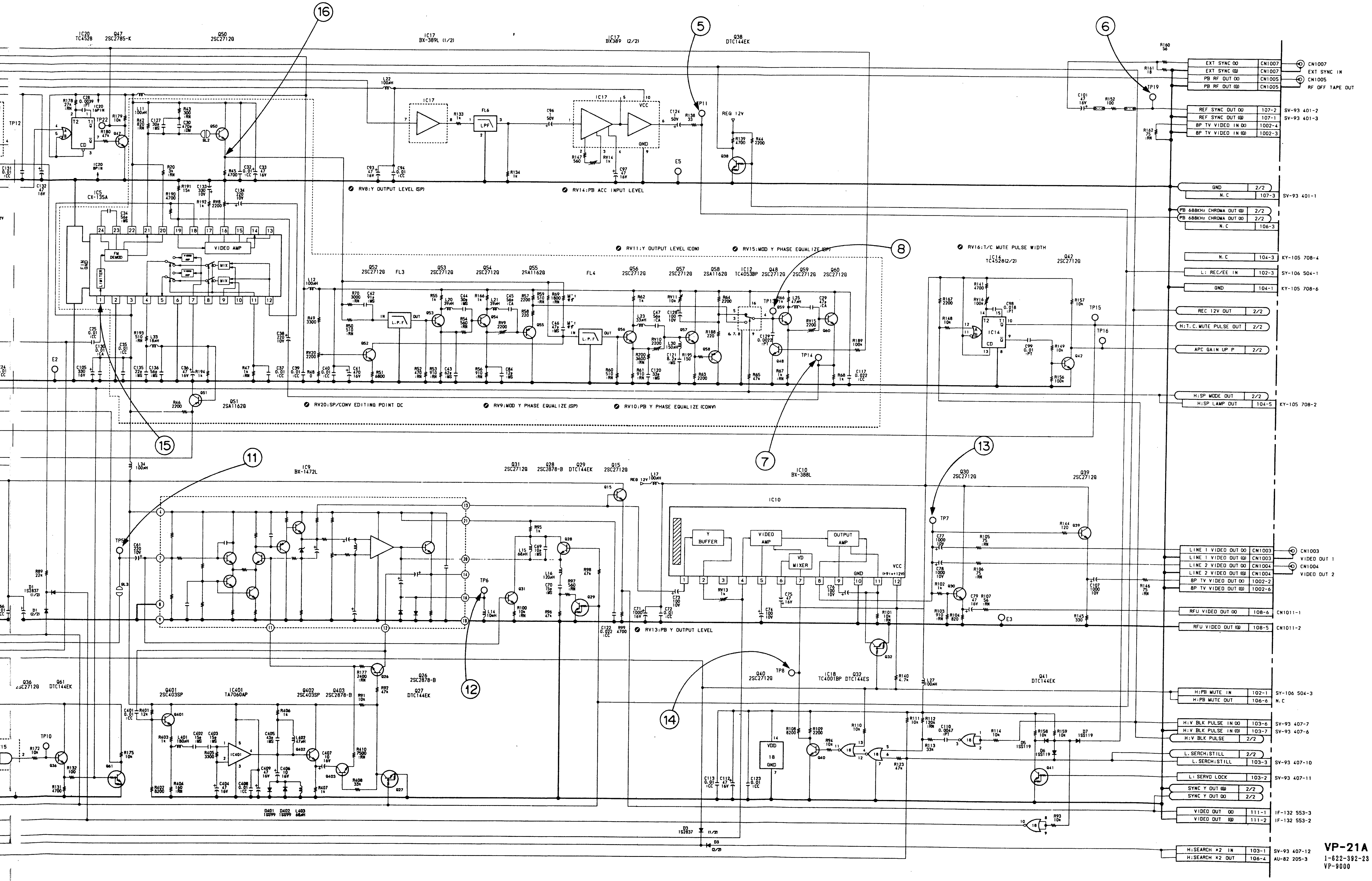

A
B
C
D
E
F
G
H
J
K
L
1
2
3
4
5
6
7
8
9
TV
CN1002
CN107
SC IN
CN1008
EX SYNC
CN1007
VIDEO IN
CN1006
CN1005
RF OFF
TAPE
CN1003
VIDEO OUT1
VIDEO OUT2
CN1004
AU MONI
CN1009
SONY
MADE IN JAPAN
LOTNO.
VP-21A
1-62239222
DIP
IC18
IC14
IC9
IC20
IC7
IC10
IC6
IC4
IC2
IC3
IC5
IC8
IC11
IC13
IC15
IC16
IC17
IC201
IC202
IC203
IC204
IC205
IC206
IC207
IC208
IC401
FL1
FL2
FL3
FL4
FL200
FL201
FL203
DL1
DL2
X1
T1
LV1
LV2
CN101
CN102
CN103
CN104
CN105
CN106
CN108
CN109
CN111
C137
RV11
RV9
RV10
RV15
RV8
RV20
RV7
RV13
RV12
RV19
RV401
RV16
RV4
RV3
RV6
RV2
RV1
RV5
RV14
RV17
RV213
RV214
RV201
RV212
RV205
RV203
RV204
RV215
RV207
RV208
RV209
RV210
RV211
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP21
TP22
TP201
TP203
TP204
TP205
TP206
TP207
TP208
TP209
TP210
TP211
TP213
W1
W2
W3
W4
W5
JW1
JW2
IN
OUT
G

VP-21A
-COMPONENT SIDE-
1-622-392-22
VP-9000

VP-21A(1/2):Y/C DEMODULATOR

UC; S/N 11251 and higher
J; S/N 10151 and higher


DC-31 002-3
DC-31 002-2
RP-31 124-6
DC-31 002-5
DC-31 002-4
DC-31 002-1
SV-93 407-9
SV-93 407-8
RP-31 124-5
RP-31 124-4
RP-31 124-1
RP-31 124-2
RP-31 124-3
TO VR
2/2 PB 12V OUT
105-3 REG 12V IN
105-4 REG 12V IN
2/2 REG 12V OUT
101-1 REG 12V OUT
109-1 REG 12V OUT
109-5 GND
105-1 GND IN
105-2 GND IN
105-5 GND IN
103-4 RF SW' PULSE IN (X)
103-5 RF SW' PULSE IN (G)
101-2 CH B PB RF IN (X)
101-3 CH B PB RF IN (G)
101-6 CH A PB RF IN (X)
101-5 CH A PB RF IN (G)
2/2 RF SW' PULSE OUT
101-4 GND
109-3 RF SW PULSE (CH SEL)
109-2 RF SW PULSE (TRIG)
109-4 RF OUT (X) (CHECK)
109-5 RF OUT (G) (CHECK)
CN1011-5
CN1011-7
2/2 3.58MHz REF IN
108-3 RFU 9V OUT
108-4 GND OUT
AU-82 205-2
SY-106 504-2
106-5 L:NON SP MODE
102-2 L:NON SP MODE
2/2 PB 3.58MHz CHROMA IN (X)
2/2 PB 3.58MHz CHROMA IN (G)
REG 12V
①
③
⑰
②
④
⑨
⑩
Q1 2SC2785-K
IC1 CX-134A
Q17 2SC2712G
Q3 2SC2712G
Q4 2SC2712G
Q5 2SC2712G
Q6 2SC2712G
Q43 2SC2785-K
Q7 2SB733-T
Q8 DTC144EK
Q9 DTC144EK
IC4 BX-1248L
IC20 TC4528
Q47 2SC2785-K
RV1:PB RF FREQ. RES (MIDDLE)
RV2:PB RF FREQ. RES (MIDDLE)
RV3:PB CHROMA RF BALANCE
RV4:PB Y RF BALANCE
RV5:PB Y RF LEVEL
TP1
TP2
TP3
TP4
TP9
TP10
TP12
TP17
TP18
TP21
TP22
E1
E2
E4
FL1 1-231-581-21
FL2 1-235-623-11
HPF
PRE AMP
RF AMP
BIAS
DROPOUT DET
LIMITER
VCC (+12V)
GND
MUTE
INV AMP
DO DET
RV7:DROP OUT COMP. SENSITIVITY
IC2 BX-1140L
IC3 NJM78L05A
5V REG
IC5 CX-135A
FM DEMOD
Q2 2SC2712G
Q66 DTC144EK
Q10 2SC2712G
Q11 2SC2712G
Q13 DTC144EK
Q12 DTC144EK
DL1 50NS
DL2 35NS
RV6:CARRIER BALANCE
Q49 2SC2878
Q20 2SC2712G
IC6 CXL5005P
Q25 DTC144EK
Q21 2SA1162G
Q22 2SC2712G
Q23 2SC2712G
Q24 2SA1162G
Q63 DTC144EK
Q18 2SC2878-B
IC7 BA7021
IC8 NJM78L09A
Q19 2SA1162G
D12 1S2837
IC6 CCD
L.P.F.
D11 1SS119 FLS
9V REG
RV12:DROP OUT DC BALANCE
RV19:DROP OUT DC BALANCE
IC11 TA7060AP
Q33 2SC2712G
Q34 2SC2712G
Q16 2SC2712G
IC16 TC4053 (2/3)
IC13 BX-1447L
IC14 TC4528BP (1/2)
Q35 2SC2712G
IC15 BX-1448L (1/2)
IC16 TC4053BP (1/3)
IC15 BX1148L (2/2)
Q36 2SC2712G
Q61 DTC144EK
HF BUFF
TRAP
SYNC TIP BUFF
CARRIER DET
INV
VDD
VSS
D8 1SS97-1
D9 1SS97-1
D4 1SS119
RV11:CON MODE DETECT
LV1:CON MODE DETECT
REG 12V


IC20 TC4528
Q47 2SC2785-K
Q50 2SC2712G
IC17 BX-389L (1/2)
IC17 BX389 (2/2)
Q38 DTC144EK
IC5 CX-135A
FM DEMOD
LIMITER
VIDEO AMP
MIX
FL6
LPF
REG 12V
TP11
TP12
TP19
TP22
E5
RV8:Y OUTPUT LEVEL (SP)
RV14:PB ACC INPUT LEVEL
RV11:Y OUTPUT LEVEL (CON)
RV15:MOD Y PHASE EQUALIZE (SP)
RV16:T/C MUTE PULSE WIDTH
Q52 2SC2712G
FL3
Q53 2SC2712G
Q54 2SC2712G
Q55 2SA1162G
FL4
Q56 2SC2712G
Q57 2SC2712G
Q58 2SA1162G
IC12 TC4053BP
Q48 2SC2712G
Q59 2SC2712G
Q60 2SC2712G
IC14 TC4528(2/2)
Q42 2SC2712G
TP13
TP14
TP15
TP16
E2
Q51 2SA1162B
RV20:SP/CONV EDITING POINT DC
RV9:MOD Y PHASE EQUALIZE (SP)
RV10:PB Y PHASE EQUALIZE (CONV)
IC9 BX-1472L
Q31 2SC2712G
Q28 2SC2878-B
Q29 DTC144EK
Q15 2SC2712G
IC10 BX-388L
Y BUFFER
VIDEO AMP
VD MIXER
OUTPUT AMP
VCC
GND
Q30 2SC2712G
Q39 2SC2712G
TP5
TP6
TP7
TP8
TP10
E3
RV13:PB Y OUTPUT LEVEL
Q36 2SC2712G
Q61 DTC144EK
Q401 2SC403SP
IC401 TA7060AP
Q402 2SC403SP
Q403 2SC2878-B
Q26 2SC2878-B
Q27 DTC144EK
Q40 2SC2712G
IC18 TC4001BP
Q32 DTC144ES
Q41 DTC144EK
D401 1SS99
D402 1SS99
L403 68μH
D3 1S2837
EXT SYNC (X) CN1007
EXT SYNC (G) CN1007
PB RF OUT (X) CN1005
PB RF OUT (G) CN1005
CN1007 EXT SYNC IN
CN1005 RF OFF TAPE OUT
REF SYNC OUT (X) 107-2 SV-93 401-2
REF SYNC OUT (G) 107-1 SV-93 401-3
8P TV VIDEO IN (X) 1002-4
8P TV VIDEO IN (G) 1002-3
GND 2/2
N.C 107-3 SV-93 401-1
PB 688KHz CHROMA OUT (G) 2/2
PB 688KHz CHROMA OUT (X) 2/2
N.C 106-3
N.C 104-3 KY-105 708-4
L: REC/EE IN 102-3 SY-106 504-1
GND 104-1 KY-105 708-6
REC 12V OUT 2/2
H;T.C.MUTE PULSE OUT 2/2
APC GAIN UP P 2/2
H:SP MODE OUT 2/2
H:SP LAMP OUT 104-5 KY-105 708-2
LINE 1 VIDEO OUT (X) CN1003
LINE 1 VIDEO OUT (G) CN1003
LINE 2 VIDEO OUT (X) CN1004
LINE 2 VIDEO OUT (G) CN1004
8P TV VIDEO OUT (X) 1002-2
8P TV VIDEO OUT (G) 1002-6
CN1003 VIDEO OUT 1
CN1004 VIDEO OUT 2
RFU VIDEO OUT (X) 108-6 CN1011-1
RFU VIDEO OUT (G) 108-5 CN1011-2
H:PB MUTE IN 102-1 SY-106 504-3
H:PB MUTE OUT 106-6 N.C
H:V BLK PULSE IN (X) 103-6 SV-93 407-7
H:V BLK PULSE IN (G) 103-7 SV-93 407-6
H:V BLK PULSE 2/2
L.SERCH:STILL 2/2
L.SERCH:STILL 103-3 SV-93 407-10
L: SERVO LOCK 103-2 SV-93 407-11
SYNC Y OUT (G) 2/2
SYNC Y OUT (X) 2/2
VIDEO OUT (X) 111-1 IF-132 553-3
VIDEO OUT (G) 111-2 IF-132 553-2
H:SEARCH ×2 IN 103-1 SV-93 407-12
H:SEARCH ×2 OUT 106-4 AU-82 205-3
⑤
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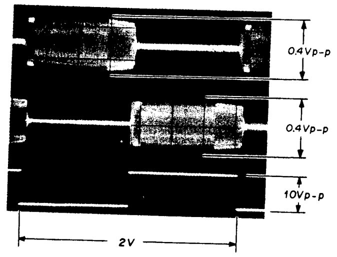
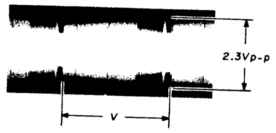
⑮
⑯

VP-21A (1/2)
1-622-392-23
VP-9000

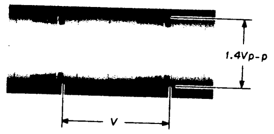
① IC1 20PIN



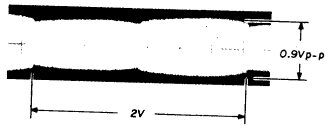
② TP18



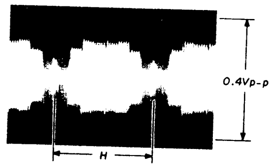
③ RV3 CENTER



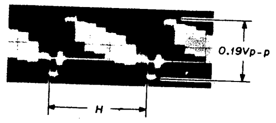
④ TP4



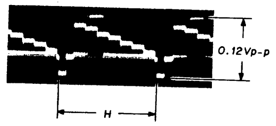
⑤ TP11



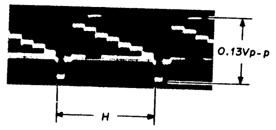
⑥ TP19



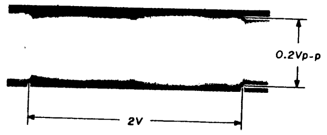
⑦ TP14



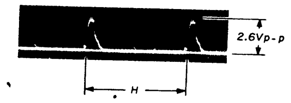
⑧ TP13



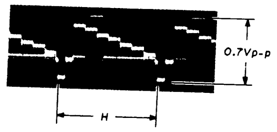
⑨ TP3



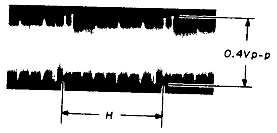
⑩ TP9



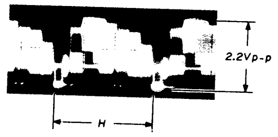
⑪ TP5



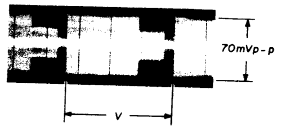
⑫ TP6



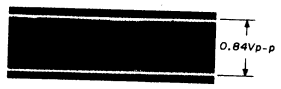
⑬ TP7



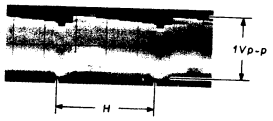
⑭ TP8



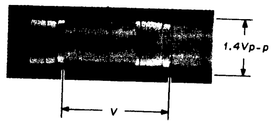
⑮ IC5 1PIN



⑯ Q50 EMITTER

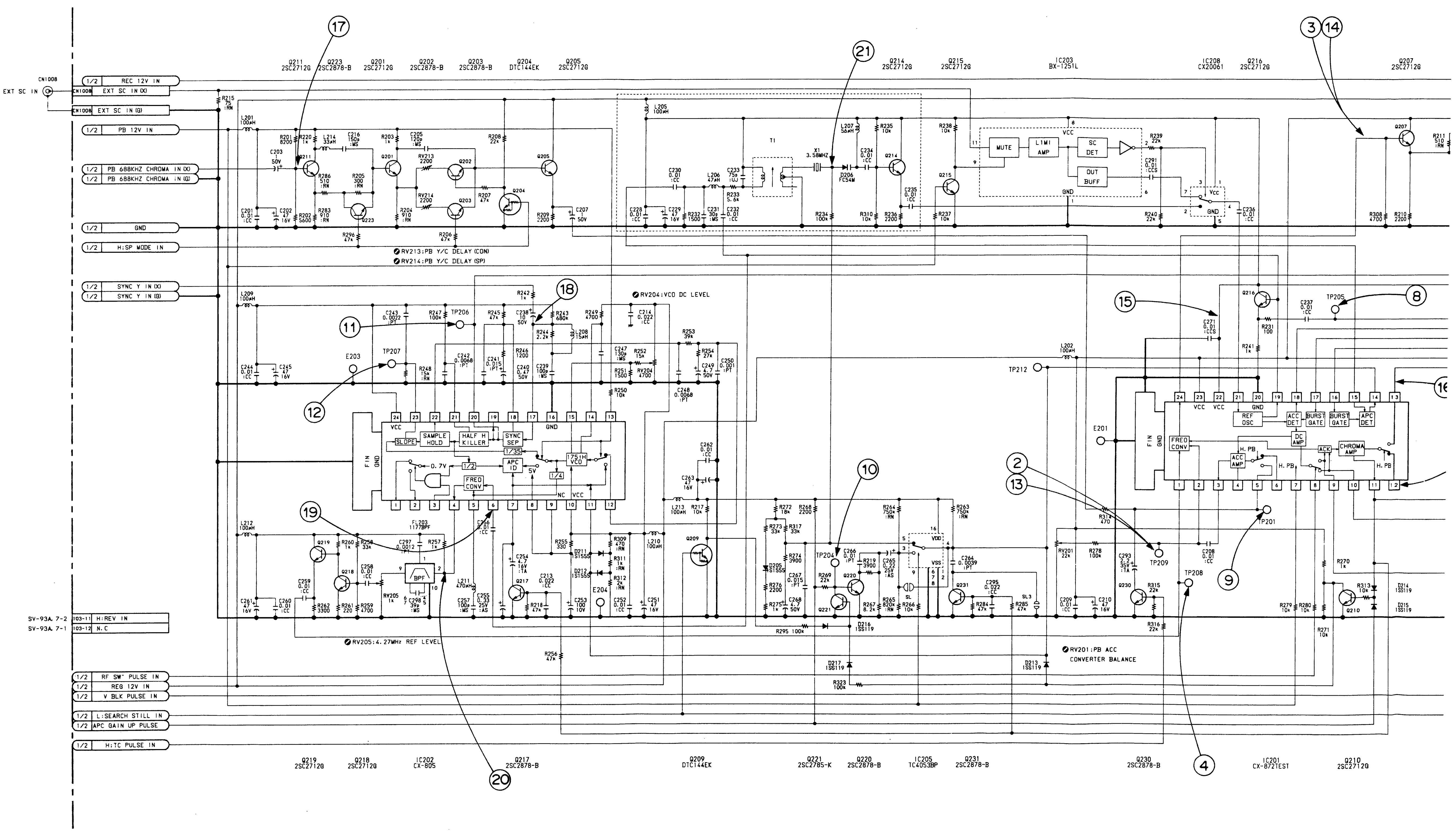


⑰ TP21



VP-21A(2/2): Y/C DEMODULATOR

UC; S/N 11251 and higher
J; S/N 10151 and higher


CN1008
EXT SC IN
1/2 REC 12V IN
CN1008 EXT SC IN (X)
CN1008 EXT SC IN (G)
1/2 PB 12V IN
1/2 PB 688KHZ CHROMA IN (X)
1/2 PB 688KHZ CHROMA IN (G)
1/2 GND
1/2 H:SP MODE IN
1/2 SYNC Y IN (X)
1/2 SYNC Y IN (G)
SV-93A 7-2 103-11 H:REV IN
SV-93A 7-1 103-12 N.C
1/2 RF SW' PULSE IN
1/2 REG 12V IN
1/2 V BLK PULSE IN
1/2 L:SEARCH STILL IN
1/2 APC GAIN UP PULSE
1/2 H:TC PULSE IN
Q211 2SC2712G
Q223 2SC2878-B
Q201 2SC2712G
Q202 2SC2878-B
Q203 2SC2878-B
Q204 DTC144EK
Q205 2SC2712G
Q214 2SC2712G
Q215 2SC2712G
IC203 BX-1251L
IC208 CX20061
Q216 2SC2712G
Q207 2SC2712G
RV213:PB Y/C DELAY (CON)
RV214:PB Y/C DELAY (SP)
RV204:VCO DC LEVEL
RV205:4.27MHz REF LEVEL
RV201:PB ACC CONVERTER BALANCE
X1 3.58MHZ
MUTE
LIMI AMP
SC DET
OUT BUFF
SLOPE
SAMPLE HOLD
HALF H KILLER
SYNC SEP
1/35
APC ID
175fH VCO
1/2
1/4
FREQ CONV
BPF
FIN GND
REF OSC
ACC DET
BURST GATE
APC DET
DC AMP
ACC AMP
ACK
CHROMA AMP
H. PB
TP201
TP204
TP205
TP206
TP207
TP208
TP209
TP212
E201
E203
E204
Q219 2SC2712G
Q218 2SC2712G
IC202 CX-805
Q217 2SC2878-B
Q209 DTC144EK
Q221 2SC2785-K
Q220 2SC2878-B
IC205 TC4053BP
Q231 2SC2878-B
Q230 2SC2878-B
IC201 CX-872TEST
Q210 2SC2712G
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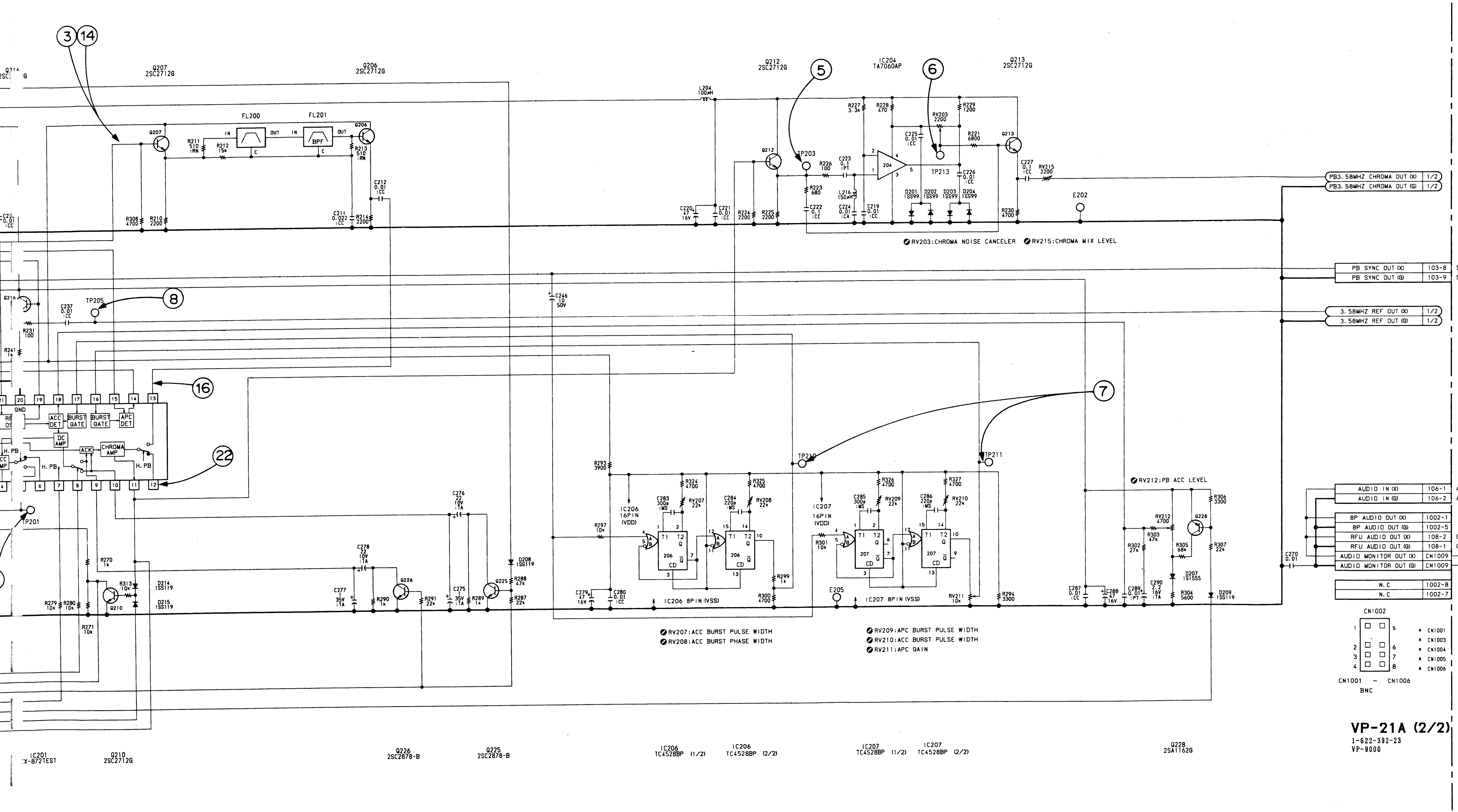
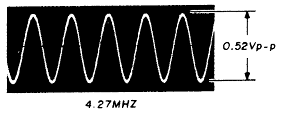
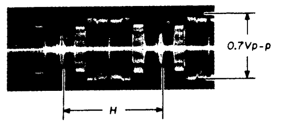

Q207
2SC2712G
Q206
2SC2712G
FL200
FL201
BPF
Q212
2SC2712G
IC204
TA7060AP
Q213
2SC2712G
L204
100μH
TP203
TP213
E202
PB3.58MHZ CHROMA OUT (X) 1/2
PB3.58MHZ CHROMA OUT (G) 1/2
RV203:CHROMA NOISE CANCELER
RV215:CHROMA MIX LEVEL
PB SYNC OUT (X) 103-8 SV-93A, 7-5
PB SYNC OUT (G) 103-9 SV-93A, 7-4
3.58MHZ REF OUT (X) 1/2
3.58MHZ REF OUT (G) 1/2
TP205
ACC DET
BURST GATE
APC DET
DC AMP
ACK
CHROMA AMP
H.PB
GND
TP201
TP210
TP211
IC206 16PIN (VDD)
IC207 16PIN (VDD)
IC206 8PIN (VSS)
IC207 8PIN (VSS)
E205
RV207:ACC BURST PULSE WIDTH
RV208:ACC BURST PHASE WIDTH
RV209:APC BURST PULSE WIDTH
RV210:ACC BURST PULSE WIDTH
RV211:APC GAIN
RV212:PB ACC LEVEL
Q228
AUDIO IN (X) 106-1 AU-82A, 5-6
AUDIO IN (G) 106-2 AU-82A, 5-5
8P AUDIO OUT (X) 1002-1
8P AUDIO OUT (G) 1002-5
RFU AUDIO OUT (X) 108-2 CN1011-4
RFU AUDIO OUT (G) 108-1 CN1011-3
AUDIO MONITOR OUT (X) CN1009
AUDIO MONITOR OUT (G) CN1009
CN1009 AUDIO MONITOR PIN JACK
N.C 1002-8
N.C 1002-7
CN1002
CN1001 ~ CN1006 BNC
IC201 CX-8721EST
Q210 2SC2712G
Q226 2SC2878-B
Q225 2SC2878-B
IC206 TC4528BP (1/2)
IC206 TC4528BP (2/2)
IC207 TC4528BP (1/2)
IC207 TC4528BP (2/2)
Q228 2SA1162G
③ ⑭ ⑤ ⑥ ⑧ ⑯ ㉒ ⑦

VP-21A (2/2)
1-622-392-23
VP-9000

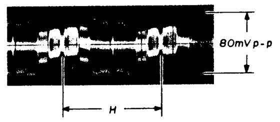
④ TP208
PB



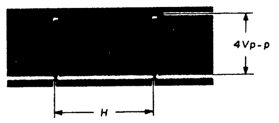
⑤ TP203



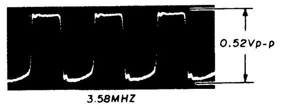
⑥ TP213



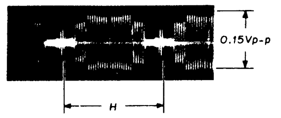
⑦ TP210
TP211



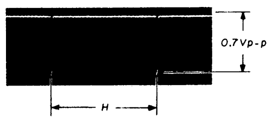
⑧ TP205



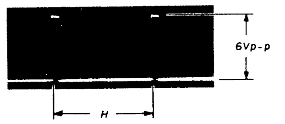
⑨ TP201



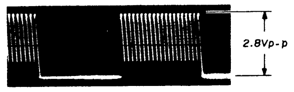
⑩ TP204



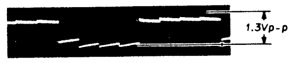
⑪ TP206



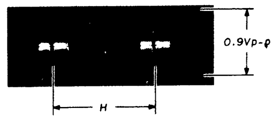
⑫ TP207



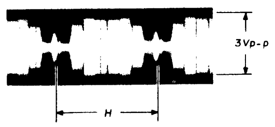
IC202
22PIN



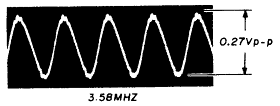
⑬ TP209
PB



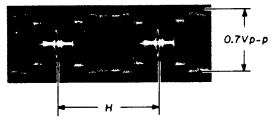
⑭ IC201
24PIN
PB



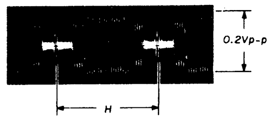
⑮ IC201
21PIN



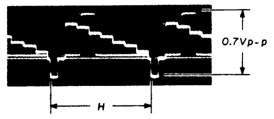
⑯ IC201
13PIN



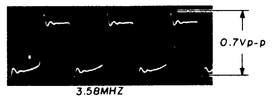
⑰ Q211
BASE



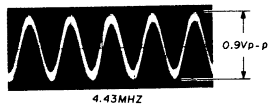
⑱ IC202
17PIN



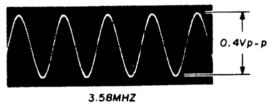
⑲ IC202
6PIN



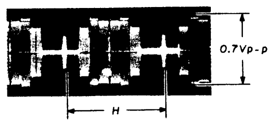
⑳ IC202
4PIN



㉑ X1



㉒ IC201
12PIN



VP-21A:Y/C DEMODULATOR (SOLDERING SIDE)

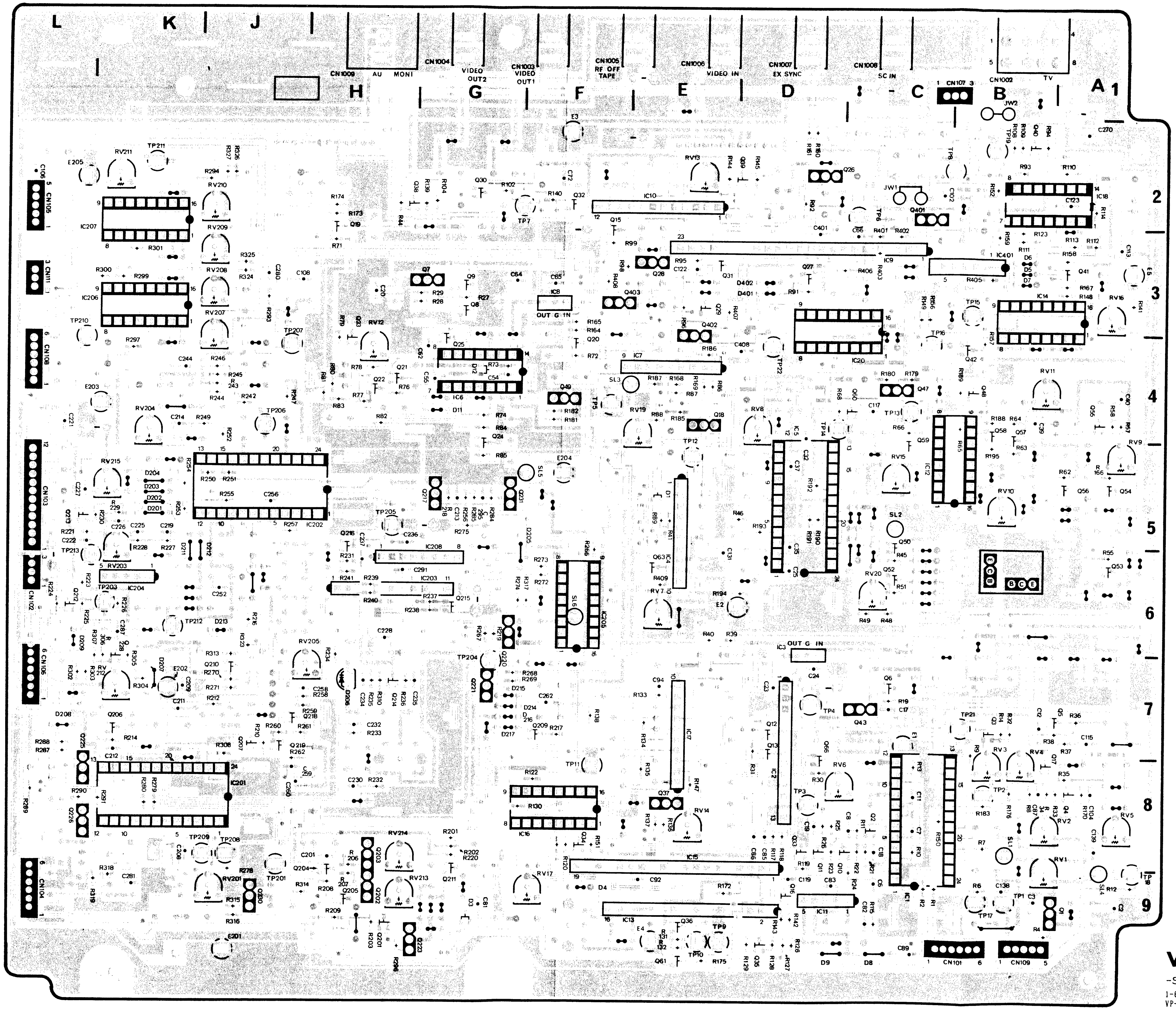
UC; S/N 11251 and higher
J; S/N 10151 and higher

VP-21A (1-622-392-23)-S

CN101	B-9	E204	F-5	Q26	D-2	Q226	
CN102	L-6	E205	L-2	Q27	D-3	Q228	
CN103	L-5			Q28	E-3	Q230	
CN104	L-9	IC1	C-8	Q29	E-3	Q231	
CN105	L-2	IC2	D-7	Q30	G-2	Q401	
CN106	L-7	IC3	D-6	Q31	E-3	Q402	
CN107	B-1	IC4	E-5	Q32	F-2	Q403	
CN108	L-4	IC5	D-5	Q33	D-8		
CN109	B-9	IC6	G-4	Q34	F-8	RV1	
CN111	L-3	IC7	E-4	Q35	D-9	RV2	
CN1002	B-1	IC8	F-3	Q36	E-9	RV3	
CN1003	F-1	IC9	D-3	Q37	E-8	RV4	
CN1004	G-1	IC10	E-2	Q38	H-2	RV5	
CN1005	F-1	IC11	D-9	Q39	D-2	RV6	
CN1006	E-1	IC12	B-5	Q40	B-2	RV7	
CN1007	D-1	IC13	E-9	Q41	A-3	RV8	
CN1008	C-1	IC14	B-3	Q42	B-4	RV9	
CN1009	H-1	IC15	E-8	Q43	C-7	RV10	
		IC16	F-8	Q47	C-4	RV11	
D1	E-5	IC17	E-7	Q48	B-4	RV12	
D3	G-9	IC18	B-2	Q49	F-4	RV13	
D4	F-9	IC20	C-4	Q50	C-6	RV14	
D5	B-3	IC201	K-8	Q52	C-6	RV15	
D6	B-3	IC202	J-5	Q53	A-6	RV16	
D7	B-3	IC203	H-6	Q54	A-5	RV17	
D8	C-9	IC204	K-6	Q55	A-4	RV19	
D9	D-9	IC205	F-6	Q56	A-5	RV20	
D11	G-4	IC206	K-3	Q57	B-4	RV201	
D12	G-4	IC207	K-2	Q58	B-4	RV203	
D201	K-5	IC208	G-6	Q59	C-5	RV204	
D202	K-5	IC401	B-3	Q60	C-4	RV205	
D203	K-5			Q61	E-9	RV207	
D204	K-5	Q1	A-9	Q63	E-6	RV208	
D205	G-6	Q2	C-8	Q66	D-8	RV209	
D206	H-7	Q3	B-7	Q201	H-9	RV210	
D207	K-7	Q4	A-8	Q202	H-9	RV211	
D208	L-7	Q5	A-7	Q203	H-8	RV212	
D209	L-6	Q6	C-7	Q204	H-9	RV213	
D211	K-6	Q7	G-3	Q205	H-9	RV214	
D212	J-6	Q8	G-3	Q206	K-7	RV215	
D213	J-6	Q9	G-3	Q207	J-7		
D214	G-7	Q10	C-8	Q209	F-7	SL1	
D215	G-7	Q11	D-8	Q210	J-7	SL2	
D216	G-7	Q12	D-7	Q211	G-9	SL3	
D217	G-7	Q13	D-7	Q212	L-6	SL4	
D401	D-3	Q15	F-3	Q213	L-5	SL5	
D402	D-3	Q16	D-9	Q214	H-7	SL6	
		Q17	A-8	Q215	G-6		
E1	C-7	Q18	E-4	Q216	H-6	TP1	
E2	D-6	Q19	H-3	Q217	G-5	TP2	
E3	F-2	Q20	F-4	Q218	J-7	TP3	
E4	E-9	Q21	H-4	Q219	J-7	TP4	
E5	A-3	Q22	H-4	Q220	G-6	TP5	
E201	J-9	Q23	H-4	Q221	G-7	TP7	
E202	K-7	Q24	G-5	Q223	H-9	TP8	
E203	K-4	Q25	G-4	Q225	L-8	TP9	

92 3)-S

E204	F-5	Q26	D-2	Q226	L-8	TP10	E-9
E205	L-2	Q27	D-3	Q228	K-7	TP11	F-8
		Q28	E-3	Q230	J-9	TP12	E-5
IC	C-8	Q29	E-3	Q231	G-5	TP13	C-4
IC2	D-7	Q30	G-2	Q401	C-2	TP14	D-4
IC3	D-6	Q31	E-3	Q402	E-4	TP15	B-3
IC4	E-5	Q32	F-2	Q403	F-3	TP16	C-4
IC5	D-5	Q33	D-8			TP17	B-9
IC6	G-4	Q34	F-8	RV1	B-9	TP18	A-9
IC7	E-4	Q35	D-9	RV2	B-8	TP19	B-2
IC8	F-3	Q36	E-9	RV3	B-8	TP21	B-7
IC9	D-3	Q37	E-8	RV4	B-8	TP22	D-4
IC10	E-2	Q38	H-2	RV5	A-8	TP201	J-9
IC11	D-9	Q39	D-2	RV6	C-8	TP203	K-6
IC12	B-5	Q40	B-2	RV7	E-6	TP204	G-7
IC1	E-9	Q41	A-3	RV8	D-4	TP205	H-5
IC1	B-3	Q42	B-4	RV9	A-5	TP206	J-4
IC15	E-8	Q43	C-7	RV10	B-5	TP207	J-4
IC16	F-8	Q47	C-4	RV11	B-4	TP208	J-8
IC1	E-7	Q48	B-4	RV12	H-4	TP209	J-8
IC1	B-2	Q49	F-4	RV13	E-2	TP210	L-4
IC20	C-4	Q50	C-6	RV14	E-8	TP211	K-2
IC201	K-8	Q52	C-6	RV15	C-5	TP212	K-6
IC202	J-5	Q53	A-6	RV16	A-3	TP213	K-6
IC203	H-6	Q54	A-5	RV17	F-9		
IC204	K-6	Q55	A-4	RV19	E-4		
IC205	F-6	Q56	A-5	RV20	C-6		
IC206	K-3	Q57	B-4	RV201	J-9		
IC207	K-2	Q58	B-4	RV203	K-6		
IC208	G-6	Q59	C-5	RV204	K-5		
IC401	B-3	Q60	C-4	RV205	H-7		
		Q61	E-9	RV207	J-4		
Q1	A-9	Q63	E-6	RV208	J-3		
Q2	C-8	Q66	D-8	RV209	J-3		
Q3	B-7	Q201	H-9	RV210	J-2		
Q4	A-8	Q202	H-9	RV211	K-2		
Q5	A-7	Q203	H-8	RV212	K-7		
Q6	C-7	Q204	H-9	RV213	H-9		
Q7	G-3	Q205	H-9	RV214	H-8		
Q8	G-3	Q206	K-7	RV215	K-5		
Q9	G-3	Q207	J-7				
Q10	C-8	Q209	F-7	SL1	B-8		
Q11	D-8	Q210	J-7	SL2	C-5		
Q12	D-7	Q211	G-9	SL3	F-4		
Q13	D-7	Q212	L-6	SL4	A-9		
Q14	F-3	Q213	L-5	SL5	F-5		
Q16	D-9	Q214	H-7	SL6	F-6		
Q17	A-8	Q215	G-6				
Q18	E-4	Q216	H-6	TP1	B-9		
Q19	H-3	Q217	G-5	TP2	B-8		
Q20	F-4	Q218	J-7	TP3	D-8		
Q21	H-4	Q219	J-7	TP4	D-7		
Q22	H-4	Q220	G-6	TP5	F-4		
Q23	H-4	Q221	G-7	TP7	G-2		
Q24	G-5	Q223	H-9	TP8	B-2		
Q25	G-4	Q225	L-8	TP9	E-9		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CN1009 AU MONI
CN1004 VIDEO OUT2
CN1003 VIDEO OUT1
CN1005 RF OFF TAPE
CN1006 VIDEO IN
CN1007 EX SYNC
CN1008 SC IN
CN1002 TV
CN107
CN101
CN109
CN105
CN111
CN108
CN103
CN102
CN106
CN104

VP-21A

-SOLDERING SIDE-

1-622-392-23

VP-9000

VP-21A:Y/C DEMODULATOR(COMPONENT SIDE)

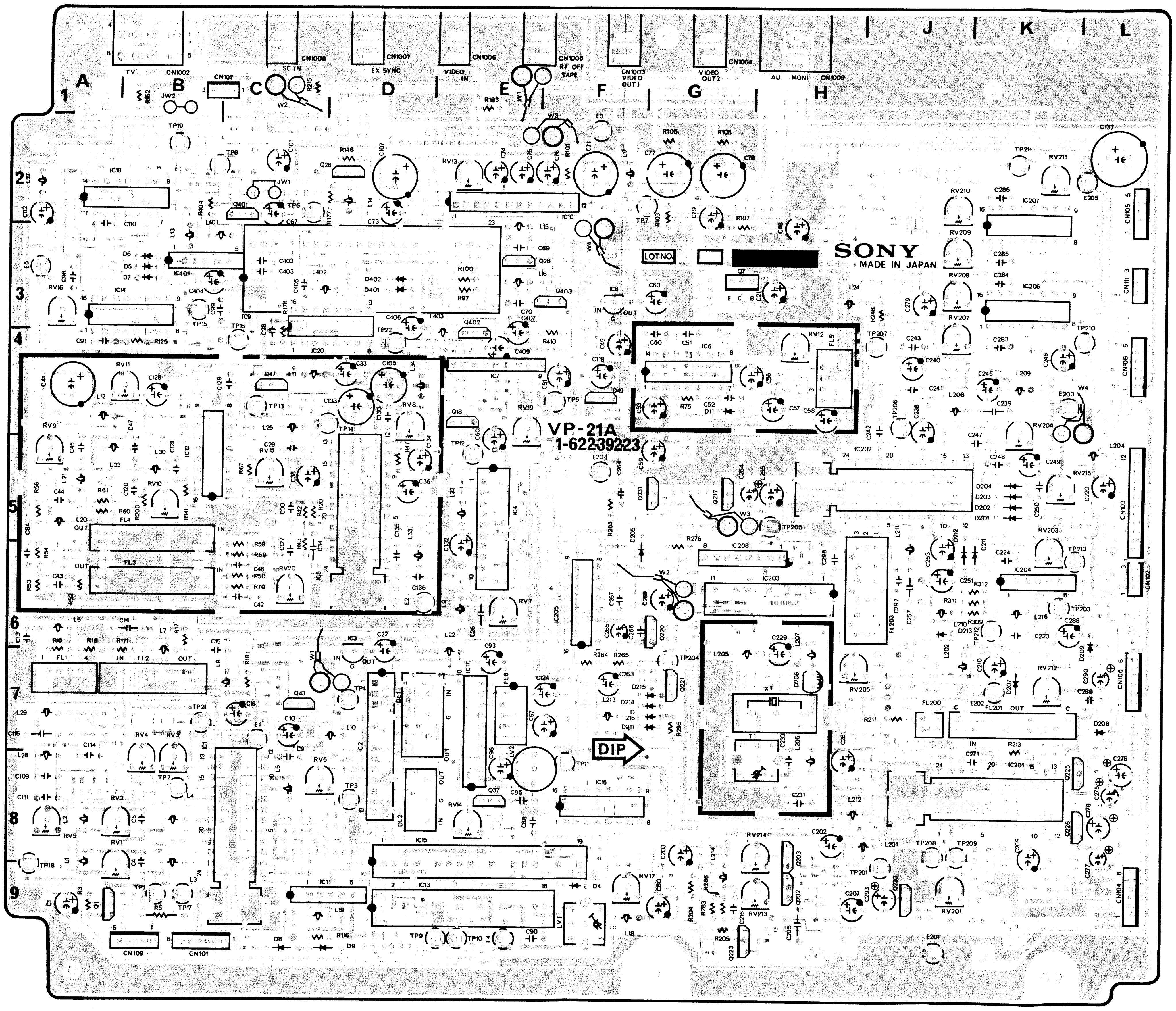
UC; S/N 11251 and higher
J; S/N 10151 and higher

VP-21A (1-622-392-23)-C

CN101	B-9	E205	L-2	Q220	G-6
CN102	L-6			Q221	G-7
CN103	L-5	FL1	A-7	Q223	H-9
CN104	L-9	FL2	B-7	Q225	L-8
CN105	L-2	FL3	B-6	Q226	L-8
CN106	L-7	FL4	B-5	Q230	J-9
CN107	B-1	FL5	H-4	Q231	G-5
CN108	L-4	FL6	E-7	Q401	C-2
CN109	B-9	FL200	J-7	Q402	E-4
CN111	L-3	FL201	K-7	Q403	F-3
CN1002	B-1	FL203	J-6		
CN1003	F-1			RV1	B-9
CN1004	G-1	IC1	C-8	RV2	B-8
CN1005	E-1	IC2	D-7	RV3	B-8
CN1006	E-1	IC3	D-7	RV4	B-8
CN1007	D-1	IC4	E-5	RV5	A-8
CN1008	C-1	IC5	D-5	RV6	C-8
CN1009	H-1	IC6	G-4	RV7	E-6
		IC7	E-4	RV8	D-4
D4	F-9	IC8	F-3	RV9	A-5
D5	B-3	IC9	D-3	RV10	B-5
D6	B-3	IC10	E-2	RV11	B-4
D7	B-3	IC11	D-9	RV12	H-4
D8	C-9	IC12	B-5	RV13	E-2
D9	D-9	IC13	E-9	RV14	E-8
D11	G-4	IC14	B-3	RV15	C-5
D201	K-5	IC15	E-8	RV16	A-3
D202	K-5	IC16	F-8	RV17	F-9
D203	K-5	IC17	E-7	RV19	E-4
D204	K-5	IC18	B-2	RV20	C-6
D206	H-7	IC20	D-3	RV201	J-9
D207	K-7	IC201	K-8	RV203	K-6
D208	L-7	IC202	J-5	RV204	K-5
D209	L-6	IC203	H-6	RV205	J-7
D211	K-6	IC204	K-6	RV207	J-4
D212	J-6	IC205	F-6	RV208	J-3
D213	J-6	IC206	K-3	RV209	J-3
D214	G-7	IC207	K-2	RV210	J-2
D215	G-7	IC208	G-6	RV211	K-2
D216	G-7	IC401	B-3	RV212	K-7
D217	G-7			RV213	H-9
D401	D-3	LV1	F-9	RV214	H-8
D402	D-3	LV2	E-8	RV215	K-5
DL1	D-7	Q1	A-9	T1	H-8
DL2	D-8	Q7	G-3		
		Q18	E-4	TP1	B-9
E1	C-7	Q26	D-2	TP2	B-8
E2	D-6	Q28	E-3	TP3	D-8
E3	F-2	Q37	E-8	TP4	D-7
E4	E-9	Q43	C-7	TP5	F-4
E5	A-3	Q47	C-4	TP6	C-2
E201	J-9	Q49	F-4	TP7	F-2
E202	K-7	Q202	H-9		
E203	K-4	Q203	H-8		
E204	F-5	Q217	G-5		

2- 92-23)-C

E205	L-2	Q220	G-6	TP8	B-2
		Q221	G-7	TP9	E-9
FL1	A-7	Q223	H-9	TP10	E-9
FL2	B-7	Q225	L-8	TP11	F-8
FL3	B-6	Q226	L-8	TP12	E-5
FL4	B-5	Q230	J-9	TP13	C-4
FL5	H-4	Q231	G-5	TP14	D-4
FL6	E-7	Q401	C-2	TP15	B-3
FL200	J-7	Q402	E-4	TP16	C-4
FL201	K-7	Q403	F-3	TP17	B-9
L203	J-6			TP18	A-9
		RV1	B-9	TP19	B-2
IC1	C-8	RV2	B-8	TP21	B-7
IC2	D-7	RV3	B-8	TP22	D-4
IC3	D-7	RV4	B-8	TP201	J-9
C4	E-5	RV5	A-8	TP203	K-6
IC5	D-5	RV6	C-8	TP204	G-7
IC6	G-4	RV7	E-6	TP205	H-5
IC7	E-4	RV8	D-4	TP206	J-4
C8	F-3	RV9	A-5	TP207	J-4
C9	D-3	RV10	B-5	TP208	J-8
IC10	E-2	RV11	B-4	TP209	J-8
IC11	D-9	RV12	H-4	TP210	L-4
C12	B-5	RV13	E-2	TP211	K-2
C13	E-9	RV14	E-8	TP212	K-6
IC14	B-3	RV15	C-5	TP213	K-6
IC15	E-8	RV16	A-3		
C16	F-8	RV17	F-9	X1	H-7
C17	E-7	RV19	E-4		
IC18	B-2	RV20	C-6		
IC20	D-3	RV201	J-9		
C201	K-8	RV203	K-6		
C202	J-5	RV204	K-5		
IC203	H-6	RV205	J-7		
IC204	K-6	RV207	J-4		
C205	F-6	RV208	J-3		
C206	K-3	RV209	J-3		
IC207	K-2	RV210	J-2		
IC208	G-6	RV211	K-2		
IC401	B-3	RV212	K-7		
		RV213	H-9		
V1	F-9	RV214	H-8		
LV2	E-8	RV215	K-5		
1	A-9	T1	H-8		
7	G-3				
Q18	E-4	TP1	B-9		
Q26	D-2	TP2	B-8		
28	E-3	TP3	D-8		
37	E-8	TP4	D-7		
Q43	C-7	TP5	F-4		
Q47	C-4	TP6	C-2		
49	F-4	TP7	F-2		
202	H-9				
Q203	H-8				
Q217	G-5				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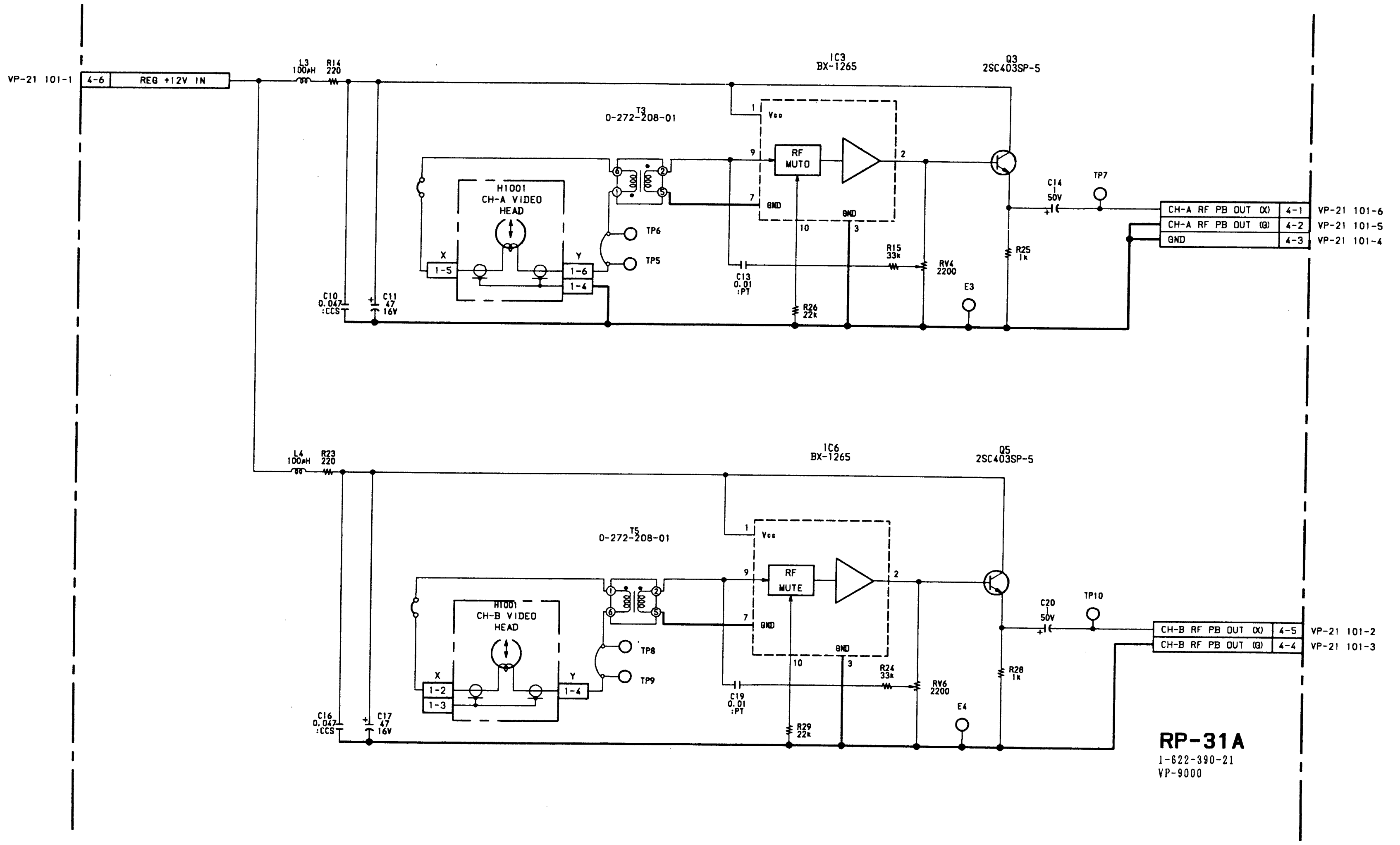
TV CN1002
SC IN CN1008
EX SYNC CN1007
VIDEO IN CN1006
RF OFF TAPE CN1005
CN1003 VIDEO OUT1
VIDEO OUT2 CN1004
AU MONI CN1009
SONY
MADE IN JAPAN
LOT NO.
VP-21A
1-62239223
DIP
CN105
CN111
CN108
CN103
CN102
CN106
CN104
CN109
CN101

VP-21A
-COMPONENT SIDE-
1-622-392-23
VP-9000

RP-31A:PB AMPLIFIER

UC;S/N 10001 thru 10250
J; S/N 10001 thru 10050

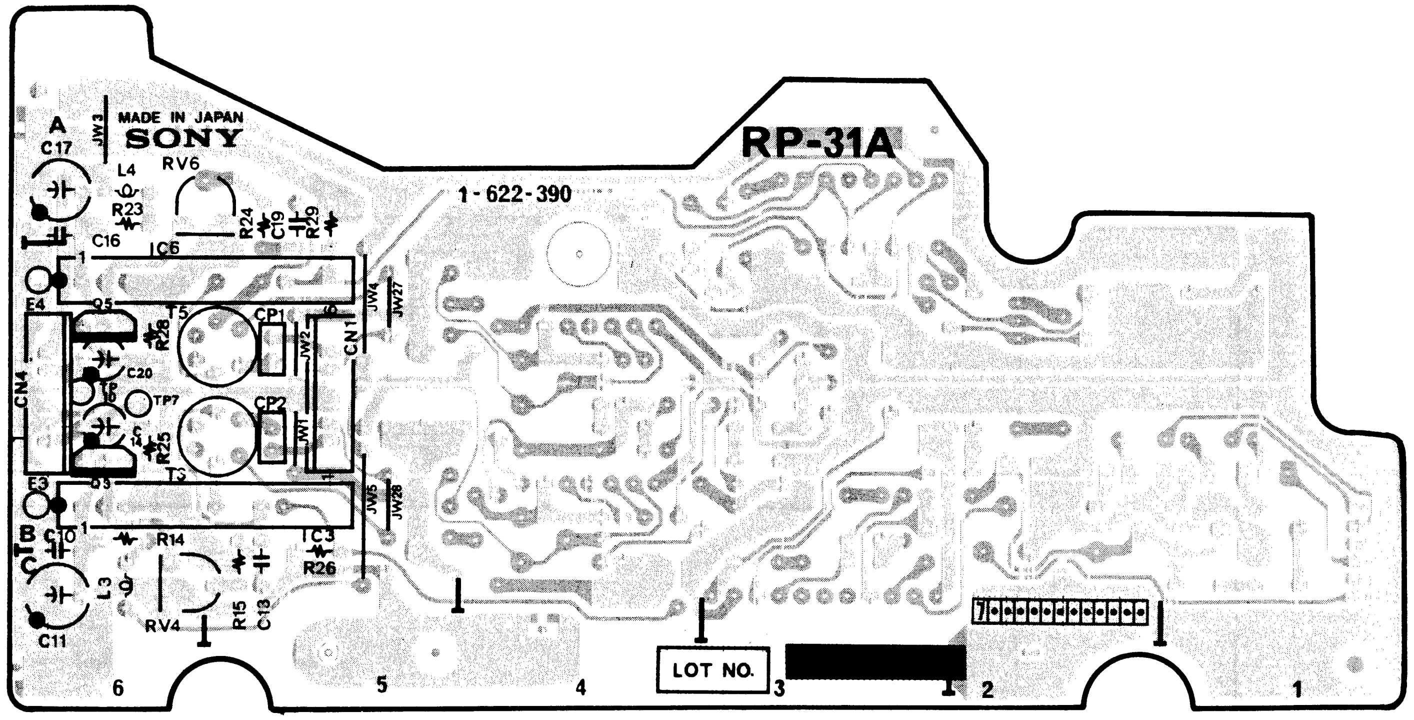

VP-21 101-1
4-6
REG +12V IN
L3
100μH
R14
220
T3
0-272-208-01
H1001
CH-A VIDEO
HEAD
X
1-5
Y
1-6
1-4
TP6
TP5
C10
0.047
:CCS
C11
47
16V
IC3
BX-1265
Vcc
RF
MUTO
GND
1
9
7
2
10
3
Q3
2SC403SP-5
C13
0.01
:PT
R26
22k
R15
33k
RV4
2200
E3
R25
1k
C14
1
50V
TP7
CH-A RF PB OUT (X)
CH-A RF PB OUT (G)
GND
4-1
4-2
4-3
VP-21 101-6
VP-21 101-5
VP-21 101-4
L4
100μH
R23
220
T5
0-272-208-01
H1001
CH-B VIDEO
HEAD
X
1-2
1-3
Y
1-4
TP8
TP9
C16
0.047
:CCS
C17
47
16V
IC6
BX-1265
Vcc
RF
MUTE
GND
1
9
7
2
10
3
Q5
2SC403SP-5
C19
0.01
:PT
R29
22k
R24
33k
RV6
2200
E4
R28
1k
C20
1
50V
TP10
CH-B RF PB OUT (X)
CH-B RF PB OUT (G)
4-5
4-4
VP-21 101-2
VP-21 101-3
RP-31A
1-622-390-21
VP-9000

RP-31A:PB AMPLIFIER

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

RP-31A (1-622-390-21)

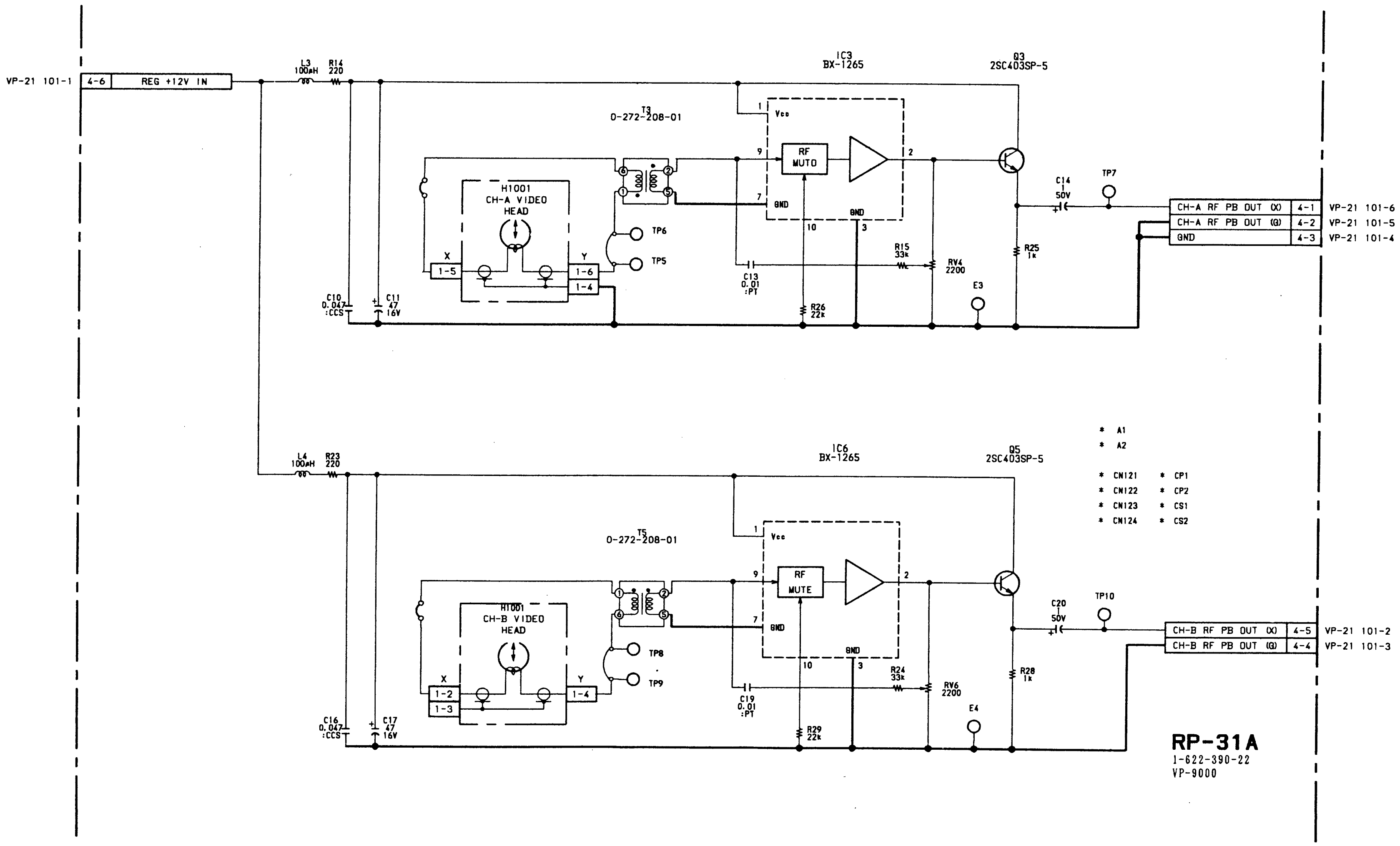
CN1	B-5
CN4	B-6
CP1	B-5
CP2	B-5
E3	B-6
E4	B-6
IC3	B-6
IC6	B-6
Q3	B-6
Q5	B-6
RV4	C-6
RV6	A-5
T3	B-5
T5	B-5
TP7	B-6
TP10	B-6


A
B
C
MADE IN JAPAN
SONY
RP-31A
1-622-390
JW3
C17
L4
RV6
R23
R24
C19
R29
C16
IC6
1
E4
Q5
T5
R28
CP1
JW2
CN1
JW4
JW27
CN4
C20
TP10
TP7
C14
R25
CP2
JW1
E3
Q3
T3
JW5
JW28
C10
R14
IC3
R26
L3
RV4
R15
C13
C11
LOT NO.
6
5
4
3
2
1

RP-31A
-COMPONENT SIDE-
1-622-390-21
VP-9000

RP-31A:PB AMPLIFIER

UC; S/N 10251 and higher
J; S/N 10051 and higher

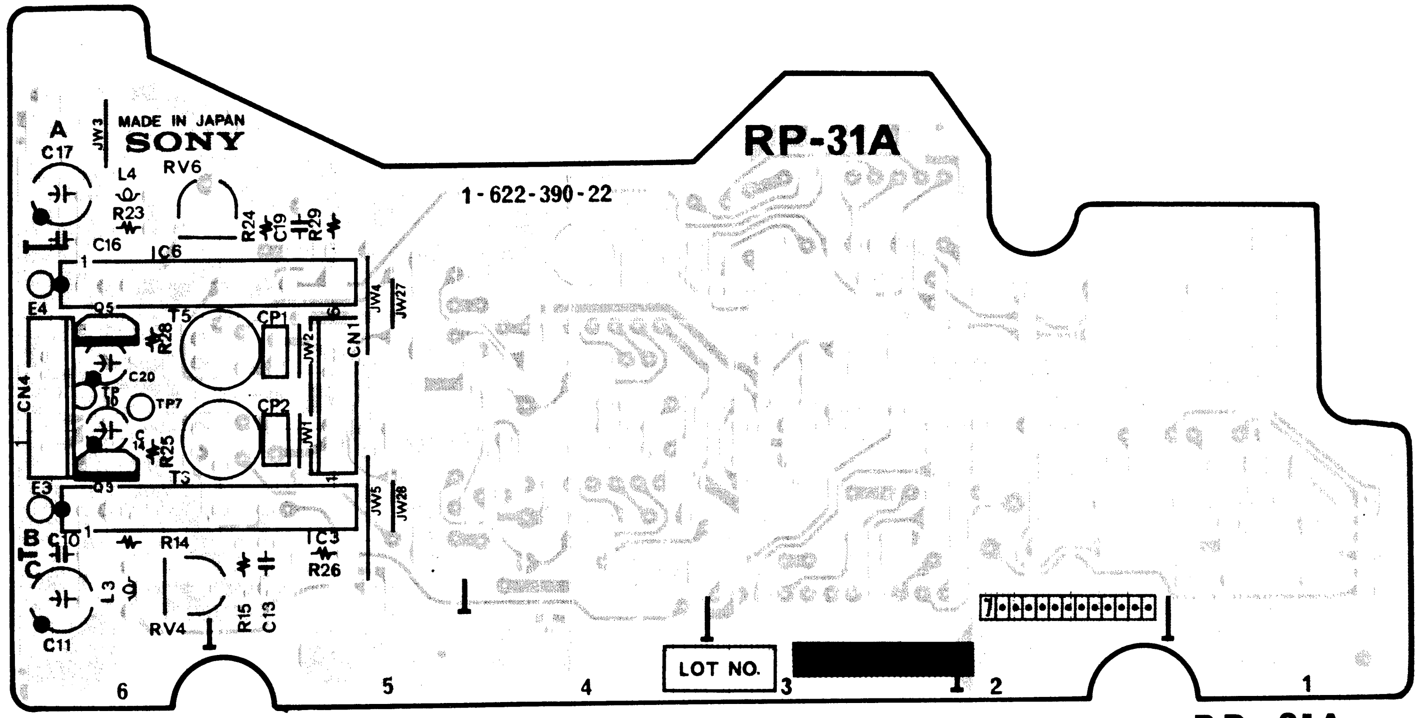

VP-21 101-1
4-6
REG +12V IN
L3
100μH
R14
220
C10
0.047
:CCS
C11
47
16V
T3
0-272-208-01
H1001
CH-A VIDEO
HEAD
X
1-5
Y
1-6
1-4
TP6
TP5
IC3
BX-1265
Vcc
RF
MUTO
GND
GND
1
9
7
10
3
2
C13
0.01
:PT
R26
22k
R15
33k
RV4
2200
E3
Q3
2SC403SP-5
C14
1
50V
TP7
R25
1k
CH-A RF PB OUT (X)
CH-A RF PB OUT (G)
GND
4-1
4-2
4-3
VP-21 101-6
VP-21 101-5
VP-21 101-4
L4
100μH
R23
220
C16
0.047
:CCS
C17
47
16V
T5
0-272-208-01
H1001
CH-B VIDEO
HEAD
X
1-2
1-3
Y
1-4
TP8
TP9
IC6
BX-1265
Vcc
RF
MUTE
GND
GND
1
9
7
10
3
2
C19
0.01
:PT
R29
22k
R24
33k
RV6
2200
E4
Q5
2SC403SP-5
C20
1
50V
TP10
R28
1k
CH-B RF PB OUT (X)
CH-B RF PB OUT (G)
4-5
4-4
VP-21 101-2
VP-21 101-3
* A1
* A2
* CN121
* CN122
* CN123
* CN124
* CP1
* CP2
* CS1
* CS2
RP-31A
1-622-390-22
VP-9000

RP-31A:PB AMPLIFIER

UC; S/N 10251 and higher
J; S/N 10051 and higher

RP-31A (1-622-390-22)

CN1	B-5
CN4	B-6
CP1	B-5
CP2	B-5
E3	B-6
E4	B-6
IC3	B-6
IC6	B-6
Q3	B-6
Q5	B-6
RV4	C-6
RV6	A-5
T3	B-5
T5	B-5
TP7	B-6
TP10	B-6


A
B
C
JW3
MADE IN JAPAN
SONY
C17
L4
RV6
R23
R24
C19
R29
C16
IC6
1
E4
Q5
T5
R28
CP1
JW2
CN1
JW4
JW27
CN4
C20
TP10
TP7
C14
R25
CP2
JW1
T3
E3
Q3
JW5
JW28
C10
R14
IC3
R26
L3
RV4
R15
C13
C11
RP-31A
1-622-390-22
LOT NO.
6
5
4
3
2
1

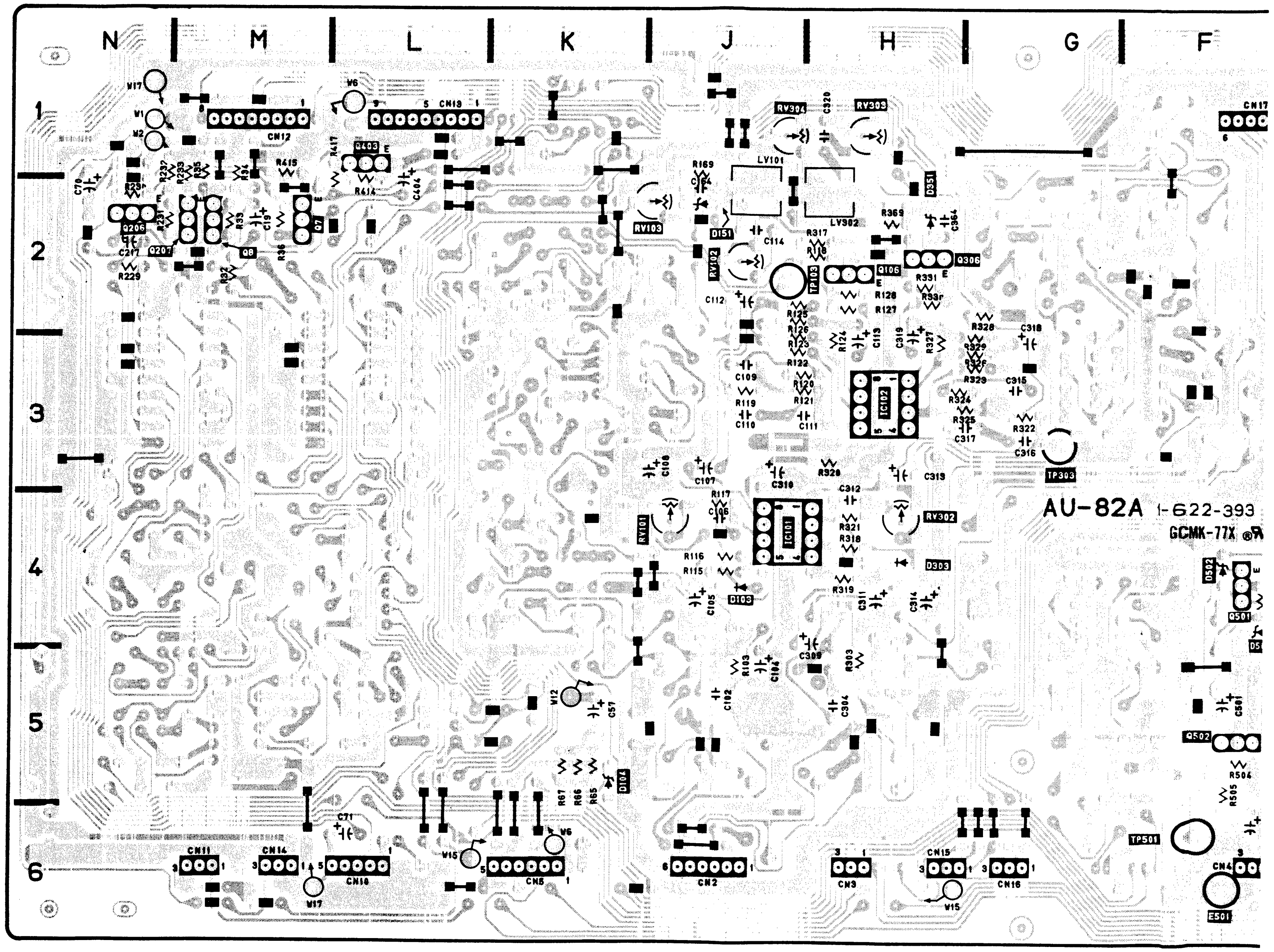
RP-31A
-COMPONENT SIDE-
1-622-390-22
VP-9000

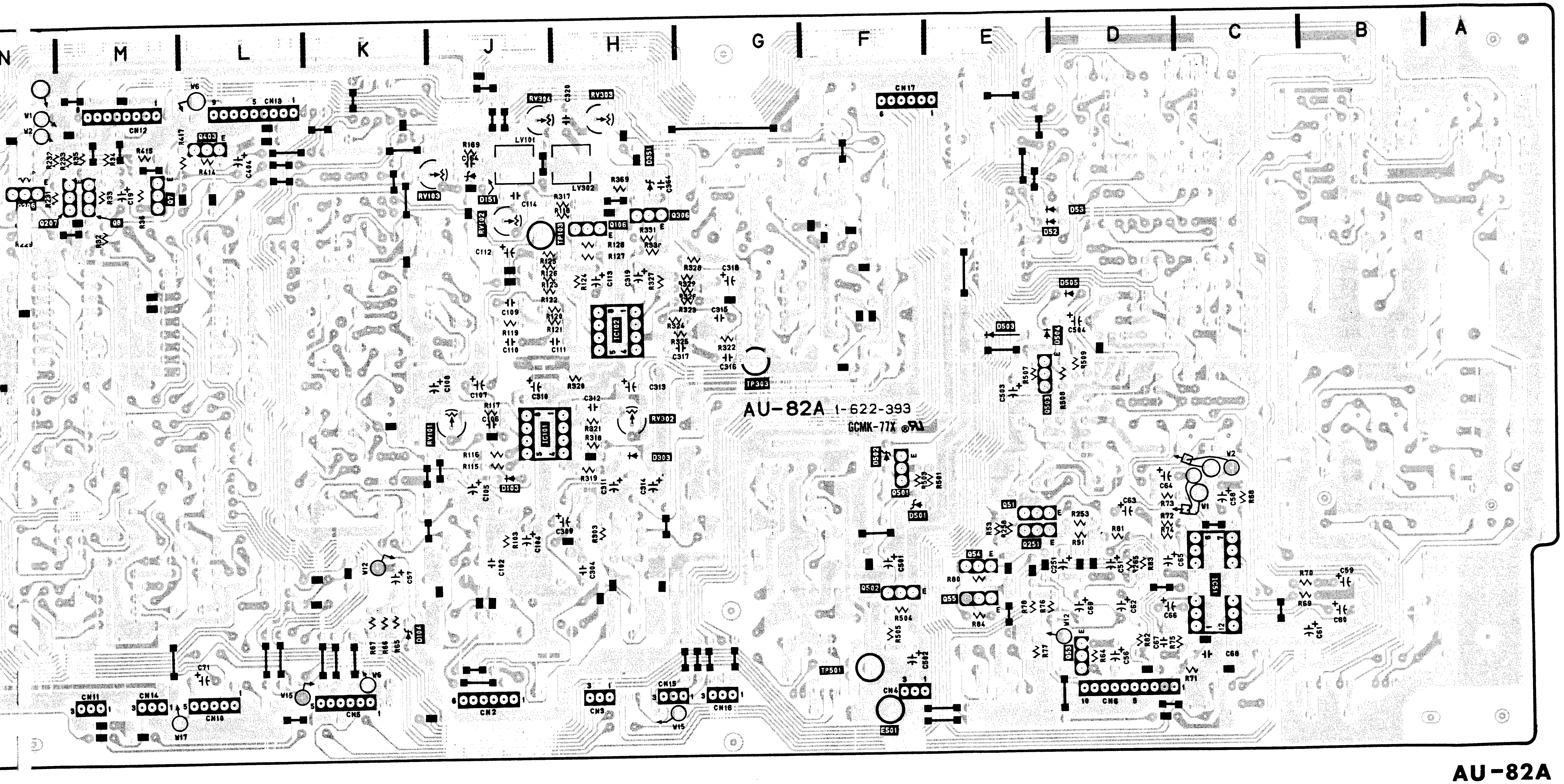
AU-82A: PB AMPLIFIER

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

AU-82A (1-622-393-21)

CN2	J-6
CN3	H-6
CN4	F-6
CN5	K-6
CN6	D-6
CN10	L-6
CN11	M-6
CN12	M-1
CN13	L-1
CN14	M-6
CN15	H-6
CN16	G-6
CN17	F-1
D52	D-2
D53	D-2
D103	J-4
D104	K-5
D151	J-2
D303	H-4
D351	H-2
D501	F-4
D502	F-4
D503	E-3
D504	E-3
D505	D-3
E501	F-6
IC51	C-5
IC101	J-4
IC102	H-3
LV101	J-2
LV301	H-5
LV302	H-2
Q7	M-2
Q8	M-2
Q51	E-4
Q53	D-6
Q54	E-5
Q55	E-5
Q106	H-2
Q206	N-2
Q207	M-2
Q208	M-4
Q251	E-5
Q306	H-2
Q403	L-1
Q501	F-4
Q502	F-5
Q503	E-3
RV101	J-4
RV102	J-2
RV103	J-2
RV302	H-4
RV303	H-1
RV304	J-1
TP103	J-2
TP303	G-3
TP501	F-6


N
M
L
K
J
H
G
F
1
2
3
4
5
6
AU-82A 1-622-393
GCMK-77X
CN12
CN13
CN17
RV304
RV303
RV103
RV102
RV101
RV302
LV101
LV302
TP103
TP303
TP501
IC101
IC102
Q206
Q207
Q8
Q7
Q403
Q106
Q306
Q501
Q502
D151
D351
D103
D303
D104
CN11
CN14
CN10
CN5
CN2
CN3
CN15
CN16
CN4
E501


N
M
L
K
J
H
G
F
E
D
C
B
A
AU-82A 1-622-393
GCMK-77X
CN17
CN18
CN12
CN11
CN14
CN10
CN5
CN2
CN3
CN15
CN16
CN4
CN6
IC101
IC102
IC51
TP303
TP501
E501
RV101
RV102
RV103
RV302
RV303
RV304
LV101
LV302
Q403
Q306
Q106
Q51
Q54
Q55
Q251
Q502
Q501
D503
D505
D52
D53

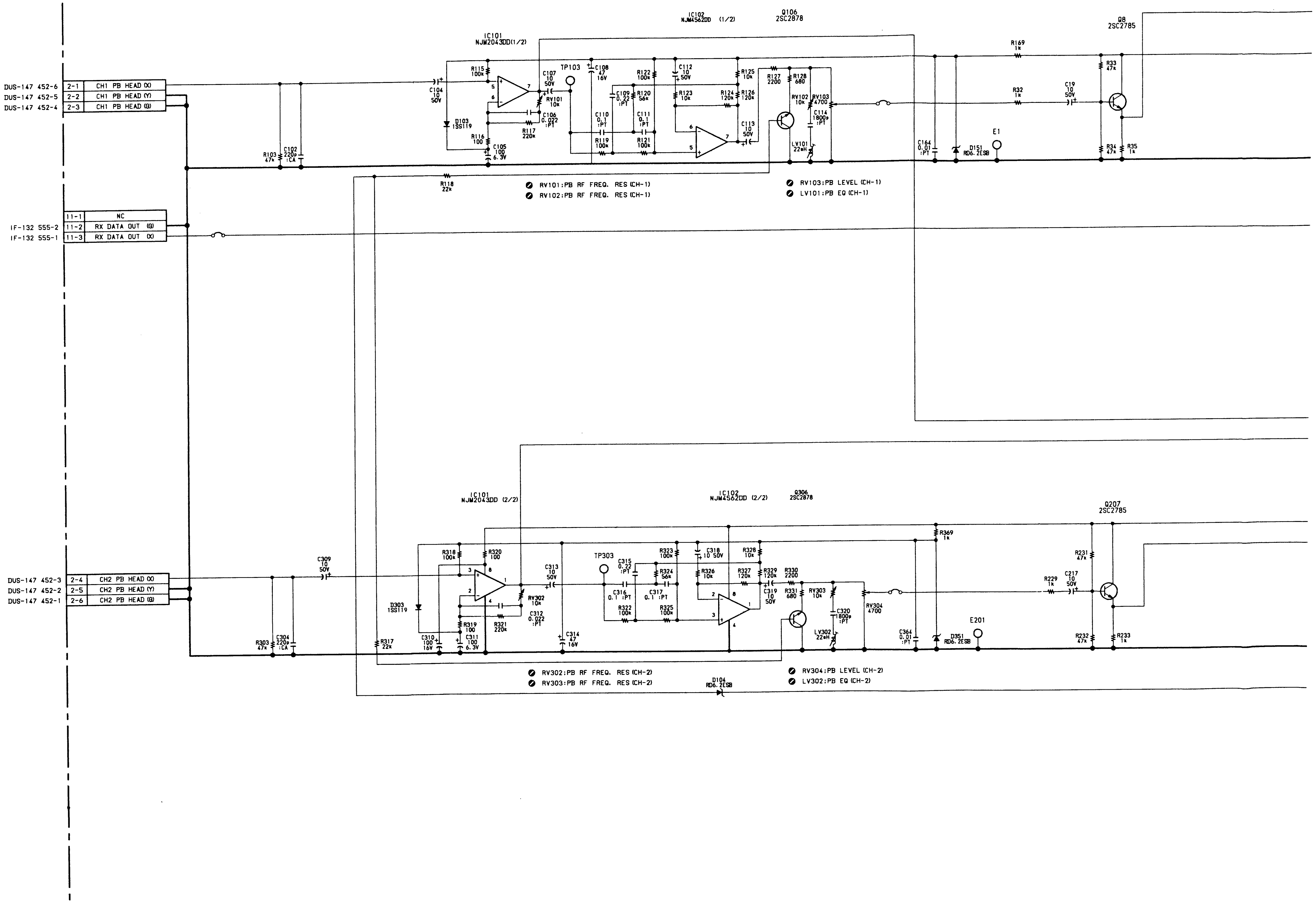
AU-82A

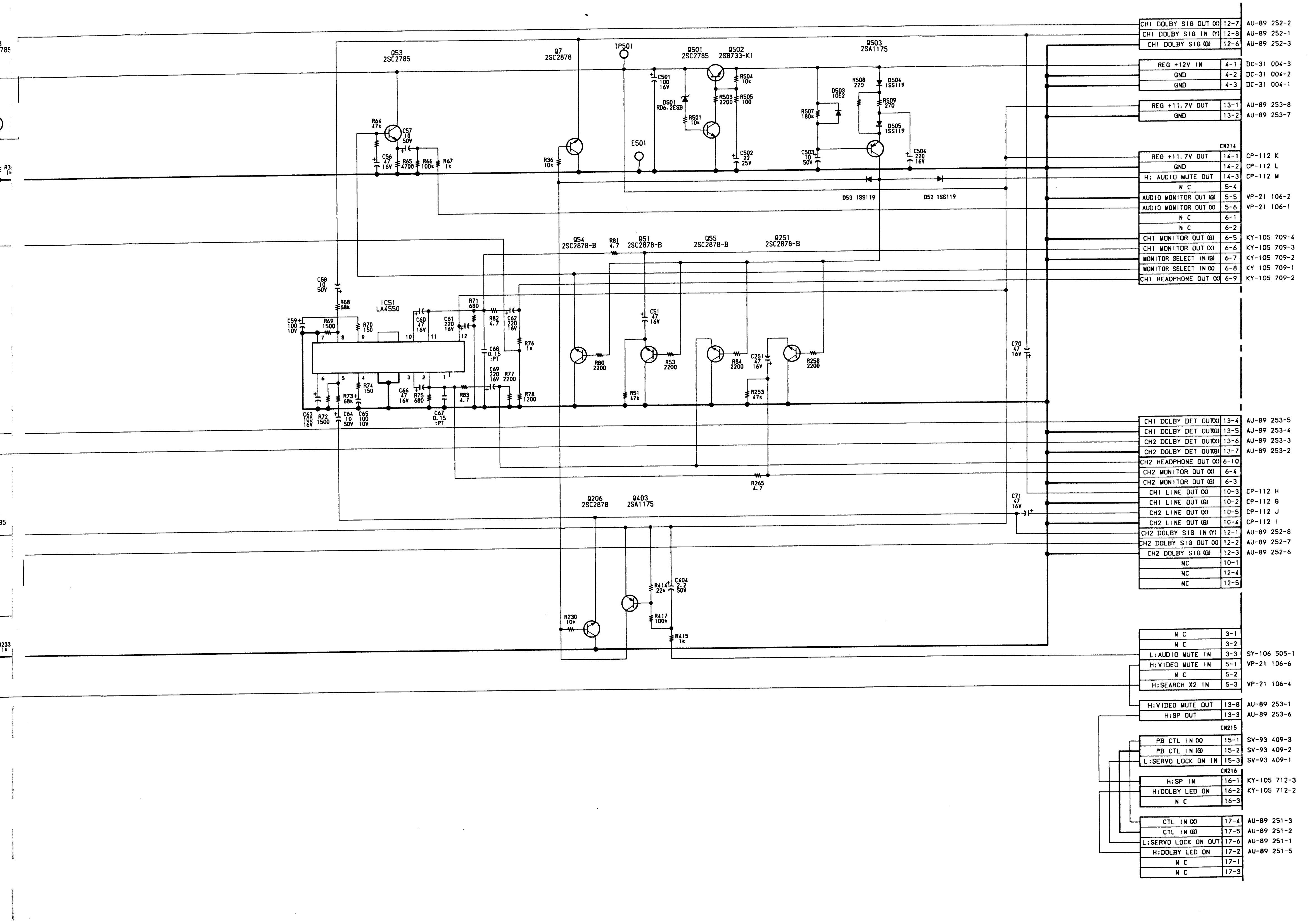
-COMPONENT SIDE-

1-622-393-21
VP-9000

AU-82A: PB AMPLIFIER

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

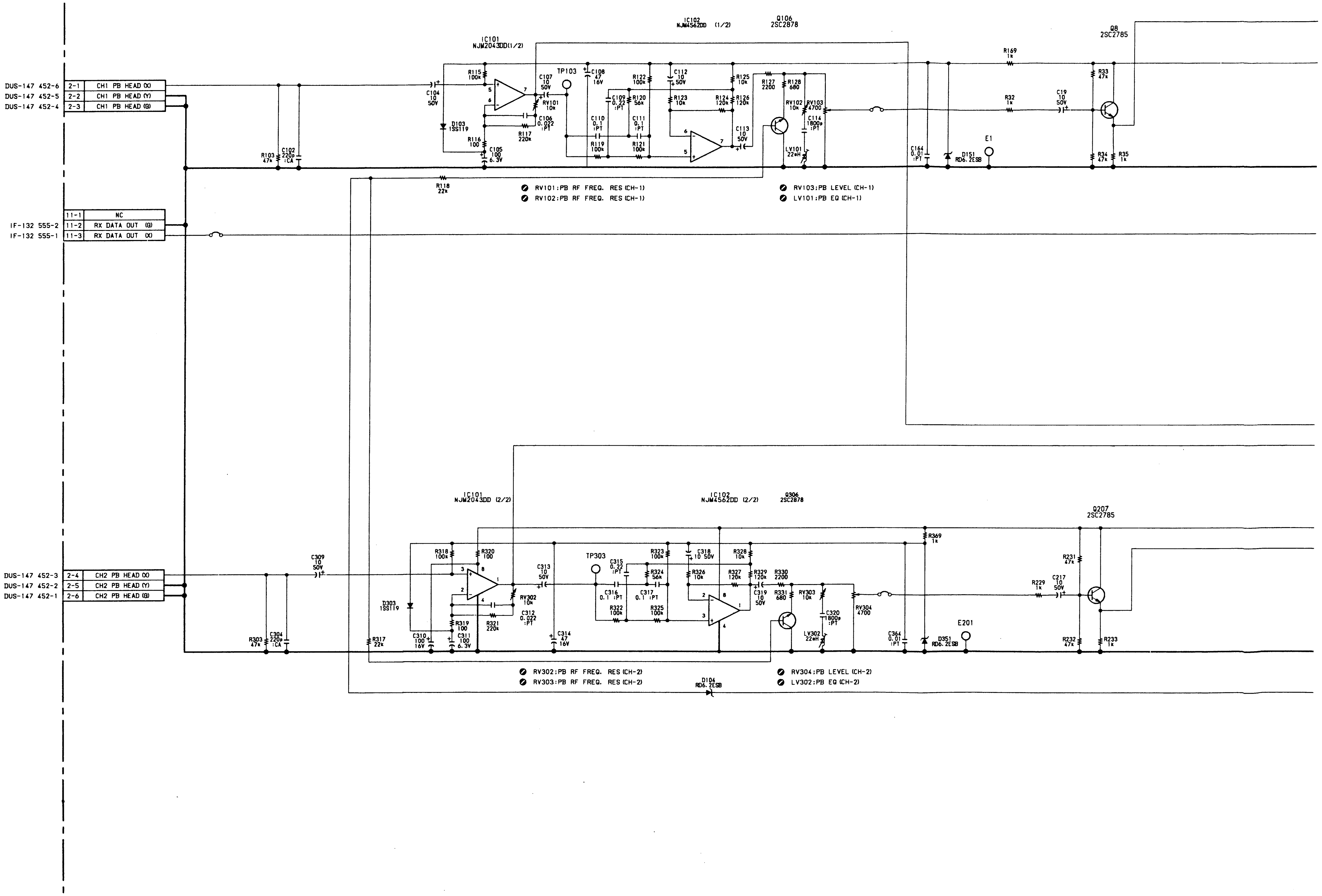

DUS-147 452-6
DUS-147 452-5
DUS-147 452-4
2-1 CH1 PB HEAD (X)
2-2 CH1 PB HEAD (Y)
2-3 CH1 PB HEAD (G)
IF-132 555-2
IF-132 555-1
11-1 NC
11-2 RX DATA OUT (G)
11-3 RX DATA OUT (X)
DUS-147 452-3
DUS-147 452-2
DUS-147 452-1
2-4 CH2 PB HEAD (X)
2-5 CH2 PB HEAD (Y)
2-6 CH2 PB HEAD (G)
IC101 NJM2043DD(1/2)
IC102 NJM4562DD (1/2)
Q106 2SC2878
Q8 2SC2785
TP103
D103 1SS119
D151 RD6.2ESB
E1
IC101 NJM2043DD (2/2)
IC102 NJM4562DD (2/2)
Q306 2SC2878
Q207 2SC2785
TP303
D303 1SS119
D351 RD6.2ESB
E201
D104 RD6.2ESB
RV101:PB RF FREQ. RES (CH-1)
RV102:PB RF FREQ. RES (CH-1)
RV103:PB LEVEL (CH-1)
LV101:PB EQ (CH-1)
RV302:PB RF FREQ. RES (CH-2)
RV303:PB RF FREQ. RES (CH-2)
RV304:PB LEVEL (CH-2)
LV302:PB EQ (CH-2)

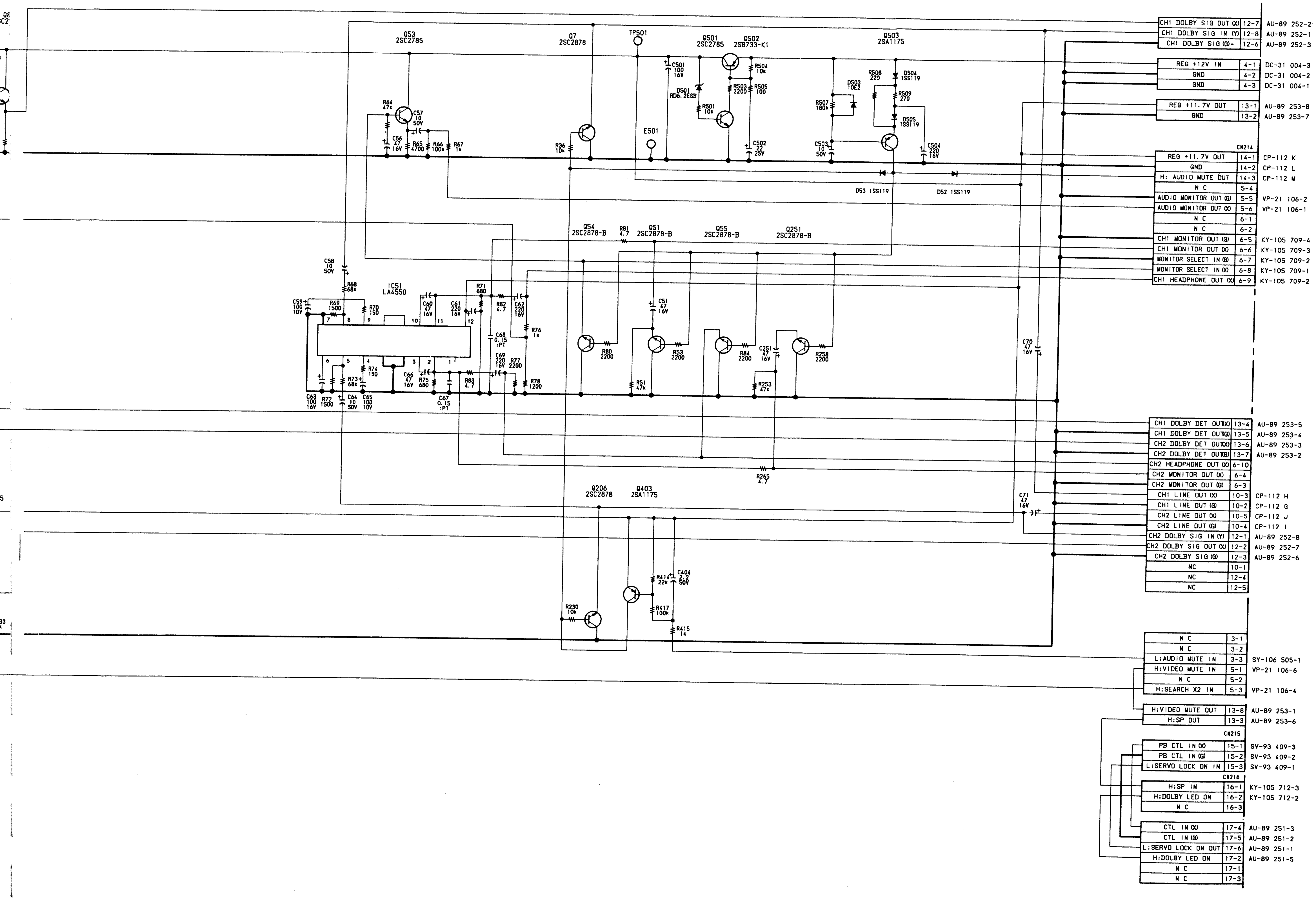

Q53
2SC2785
R64 47k
C57 10 50V
C56 47 16V
R65 4700
R66 100k
R67 1k
Q7
2SC2878
R36 10k
TP501
E501
Q501
2SC2785
Q502
2SB733-K1
C501 100 16V
D501 RD6.2ESB
R501 10k
R504 10k
R503 2200
R505 100
C502 22 25V
Q503
2SA1175
R508 220
D504 1SS119
D503 10E2
R507 180k
R509 270
D505 1SS119
C503 10 50V
C504 220 16V
D53 1SS119
D52 1SS119
Q54
2SC2878-B
R81 4.7
Q51
2SC2878-B
Q55
2SC2878-B
Q251
2SC2878-B
C58 10 50V
R68 68k
IC51
LA4550
C59 100 10V
R69 1500
R70 150
C60 47 16V
C61 220 16V
R71 680
R82 4.7
C62 220 16V
R76 1k
C68 0.15 :PT
C69 220 16V
R77 2200
R78 1200
R83 4.7
C67 0.15 :PT
C66 47 16V
R75 680
R74 150
R73 68k
C63 100 16V
R72 1500
C64 10 50V
C65 100 10V
C51 47 16V
R80 2200
R51 47k
R53 2200
R84 2200
C251 47 16V
R253 47k
R258 2200
R265 4.7
C70 47 16V
C71 47 16V
Q206
2SC2878
Q403
2SA1175
R230 10k
R414 22k
C404 2.2 50V
R417 100k
R415 1k
R233 1k
CH1 DOLBY SIG OUT (X) 12-7 AU-89 252-2
CH1 DOLBY SIG IN (Y) 12-8 AU-89 252-1
CH1 DOLBY SIG (G) 12-6 AU-89 252-3
REG +12V IN 4-1 DC-31 004-3
GND 4-2 DC-31 004-2
GND 4-3 DC-31 004-1
REG +11.7V OUT 13-1 AU-89 253-8
GND 13-2 AU-89 253-7
CN214
REG +11.7V OUT 14-1 CP-112 K
GND 14-2 CP-112 L
H; AUDIO MUTE OUT 14-3 CP-112 M
N C 5-4
AUDIO MONITOR OUT (G) 5-5 VP-21 106-2
AUDIO MONITOR OUT (X) 5-6 VP-21 106-1
N C 6-1
N C 6-2
CH1 MONITOR OUT (G) 6-5 KY-105 709-4
CH1 MONITOR OUT (X) 6-6 KY-105 709-3
MONITOR SELECT IN (G) 6-7 KY-105 709-2
MONITOR SELECT IN (X) 6-8 KY-105 709-1
CH1 HEADPHONE OUT (X) 6-9 KY-105 709-2
CH1 DOLBY DET OUT(X) 13-4 AU-89 253-5
CH1 DOLBY DET OUT(G) 13-5 AU-89 253-4
CH2 DOLBY DET OUT(X) 13-6 AU-89 253-3
CH2 DOLBY DET OUT(G) 13-7 AU-89 253-2
CH2 HEADPHONE OUT (X) 6-10
CH2 MONITOR OUT (X) 6-4
CH2 MONITOR OUT (G) 6-3
CH1 LINE OUT (X) 10-3 CP-112 H
CH1 LINE OUT (G) 10-2 CP-112 G
CH2 LINE OUT (X) 10-5 CP-112 J
CH2 LINE OUT (G) 10-4 CP-112 I
CH2 DOLBY SIG IN (Y) 12-1 AU-89 252-8
CH2 DOLBY SIG OUT (X) 12-2 AU-89 252-7
CH2 DOLBY SIG (G) 12-3 AU-89 252-6
NC 10-1
NC 12-4
NC 12-5
N C 3-1
N C 3-2
L:AUDIO MUTE IN 3-3 SY-106 505-1
H:VIDEO MUTE IN 5-1 VP-21 106-6
N C 5-2
H:SEARCH X2 IN 5-3 VP-21 106-4
H:VIDEO MUTE OUT 13-8 AU-89 253-1
H:SP OUT 13-3 AU-89 253-6
CN215
PB CTL IN (X) 15-1 SV-93 409-3
PB CTL IN (G) 15-2 SV-93 409-2
L:SERVO LOCK ON IN 15-3 SV-93 409-1
CN216
H:SP IN 16-1 KY-105 712-3
H:DOLBY LED ON 16-2 KY-105 712-2
N C 16-3
CTL IN (X) 17-4 AU-89 251-3
CTL IN (G) 17-5 AU-89 251-2
L:SERVO LOCK ON OUT 17-6 AU-89 251-1
H:DOLBY LED ON 17-2 AU-89 251-5
N C 17-1
N C 17-3

AU-82A
1-622-393-21
VP-9000

AU-82A:PB AMPLIFIER

UC; S/N 10251 thru 11250
J; S/N 10051 thru 10150


DUS-147 452-6
DUS-147 452-5
DUS-147 452-4
2-1 CH1 PB HEAD (X)
2-2 CH1 PB HEAD (Y)
2-3 CH1 PB HEAD (G)
11-1 NC
11-2 RX DATA OUT (G)
11-3 RX DATA OUT (X)
IF-132 555-2
IF-132 555-1
R103 47k
C102 220p :CA
IC101 NJM2043DD(1/2)
R115 100k
C104 10 50V
D103 1SS119
R116 100
C105 100 6.3V
R117 220k
C106 0.022 :PT
RV101 10k
C107 10 50V
TP103
R118 22k
IC102 NJM4562DD (1/2)
C108 47 16V
C109 0.22 :PT
R120 56k
R122 100k
C110 0.1 :PT
C111 0.1 :PT
R119 100k
R121 100k
C112 10 50V
R123 10k
R124 120k
R125 10k
R126 120k
C113 10 50V
Q106 2SC2878
R127 2200
R128 680
RV102 10k
RV103 4700
C114 1800p :PT
LV101 22mH
C164 0.01 :PT
D151 RD6.2ESB
E1
R169 1k
R32 1k
C19 10 50V
Q8 2SC2785
R33 47k
R34 47k
R35 1k
RV101:PB RF FREQ. RES (CH-1)
RV102:PB RF FREQ. RES (CH-1)
RV103:PB LEVEL (CH-1)
LV101:PB EQ (CH-1)
DUS-147 452-3
DUS-147 452-2
DUS-147 452-1
2-4 CH2 PB HEAD (X)
2-5 CH2 PB HEAD (Y)
2-6 CH2 PB HEAD (G)
R303 47k
C304 220p :CA
C309 10 50V
R317 22k
IC101 NJM2043DD (2/2)
D303 1SS119
R318 100k
R320 100
C310 100 16V
R319 100
C311 100 6.3V
R321 220k
RV302 10k
C312 0.022 :PT
C313 10 50V
C314 47 16V
TP303
C315 0.22 :PT
C316 0.1 :PT
C317 0.1 :PT
R322 100k
R323 100k
R324 56k
R325 100k
IC102 NJM4562DD (2/2)
C318 10 50V
R326 10k
R327 120k
R328 10k
R329 120k
C319 10 50V
Q306 2SC2878
R330 2200
R331 680
RV303 10k
C320 1800p :PT
LV302 22mH
RV304 4700
C364 0.01 :PT
R369 1k
D351 RD6.2ESB
E201
R229 1k
C217 10 50V
Q207 2SC2785
R231 47k
R232 47k
R233 1k
RV302:PB RF FREQ. RES (CH-2)
RV303:PB RF FREQ. RES (CH-2)
D104 RD6.2ESB
RV304:PB LEVEL (CH-2)
LV302:PB EQ (CH-2)


Q53
2SC2785
R64
47k
C57
10
50V
C56
47
16V
R65
4700
R66
100k
R67
1k
Q7
2SC2878
R36
10k
TP501
E501
C501
100
16V
Q501
2SC2785
Q502
2SB733-K1
D501
RD6.2ESB
R501
10k
R504
10k
R503
2200
R505
100
C502
22
25V
Q503
2SA1175
R507
180k
D503
10E2
R508
220
D504
1SS119
R509
270
D505
1SS119
C503
10
50V
C504
220
16V
D53 1SS119
D52 1SS119
Q54
2SC2878-B
R81
4.7
Q51
2SC2878-B
Q55
2SC2878-B
Q251
2SC2878-B
C58
10
50V
R68
68k
IC51
LA4550
C59
100
10V
R69
1500
R70
150
C60
47
16V
C61
220
16V
R71
680
R82
4.7
C62
220
16V
R76
1k
C68
0.15
:PT
C69
220
16V
R77
2200
R78
1200
R83
4.7
C63
100
16V
R72
1500
R73
68k
R74
150
C64
10
50V
C65
100
10V
C66
47
16V
R75
680
C67
0.15
:PT
C51
47
16V
R80
2200
R51
47k
R53
2200
R84
2200
C251
47
16V
R253
47k
R258
2200
R265
4.7
C70
47
16V
C71
47
16V
Q206
2SC2878
Q403
2SA1175
R414
22k
C404
2.2
50V
R417
100k
R230
10k
R415
1k
CH1 DOLBY SIG OUT (X) 12-7 AU-89 252-2
CH1 DOLBY SIG IN (Y) 12-8 AU-89 252-1
CH1 DOLBY SIG (G) 12-6 AU-89 252-3
REG +12V IN 4-1 DC-31 004-3
GND 4-2 DC-31 004-2
GND 4-3 DC-31 004-1
REG +11.7V OUT 13-1 AU-89 253-8
GND 13-2 AU-89 253-7
CN214
REG +11.7V OUT 14-1 CP-112 K
GND 14-2 CP-112 L
H: AUDIO MUTE OUT 14-3 CP-112 M
N C 5-4
AUDIO MONITOR OUT (G) 5-5 VP-21 106-2
AUDIO MONITOR OUT (X) 5-6 VP-21 106-1
N C 6-1
N C 6-2
CH1 MONITOR OUT (G) 6-5 KY-105 709-4
CH1 MONITOR OUT (X) 6-6 KY-105 709-3
MONITOR SELECT IN (G) 6-7 KY-105 709-2
MONITOR SELECT IN (X) 6-8 KY-105 709-1
CH1 HEADPHONE OUT (X) 6-9 KY-105 709-2
CH1 DOLBY DET OUT(X) 13-4 AU-89 253-5
CH1 DOLBY DET OUT(G) 13-5 AU-89 253-4
CH2 DOLBY DET OUT(X) 13-6 AU-89 253-3
CH2 DOLBY DET OUT(G) 13-7 AU-89 253-2
CH2 HEADPHONE OUT (X) 6-10
CH2 MONITOR OUT (X) 6-4
CH2 MONITOR OUT (G) 6-3
CH1 LINE OUT (X) 10-3 CP-112 H
CH1 LINE OUT (G) 10-2 CP-112 G
CH2 LINE OUT (X) 10-5 CP-112 J
CH2 LINE OUT (G) 10-4 CP-112 I
CH2 DOLBY SIG IN (Y) 12-1 AU-89 252-8
CH2 DOLBY SIG OUT (X) 12-2 AU-89 252-7
CH2 DOLBY SIG (G) 12-3 AU-89 252-6
NC 10-1
NC 12-4
NC 12-5
N C 3-1
N C 3-2
L:AUDIO MUTE IN 3-3 SY-106 505-1
H:VIDEO MUTE IN 5-1 VP-21 106-6
N C 5-2
H:SEARCH X2 IN 5-3 VP-21 106-4
H:VIDEO MUTE OUT 13-8 AU-89 253-1
H:SP OUT 13-3 AU-89 253-6
CN215
PB CTL IN (X) 15-1 SV-93 409-3
PB CTL IN (G) 15-2 SV-93 409-2
L:SERVO LOCK ON IN 15-3 SV-93 409-1
CN216
H:SP IN 16-1 KY-105 712-3
H:DOLBY LED ON 16-2 KY-105 712-2
N C 16-3
CTL IN (X) 17-4 AU-89 251-3
CTL IN (G) 17-5 AU-89 251-2
L:SERVO LOCK ON OUT 17-6 AU-89 251-1
H:DOLBY LED ON 17-2 AU-89 251-5
N C 17-1
N C 17-3

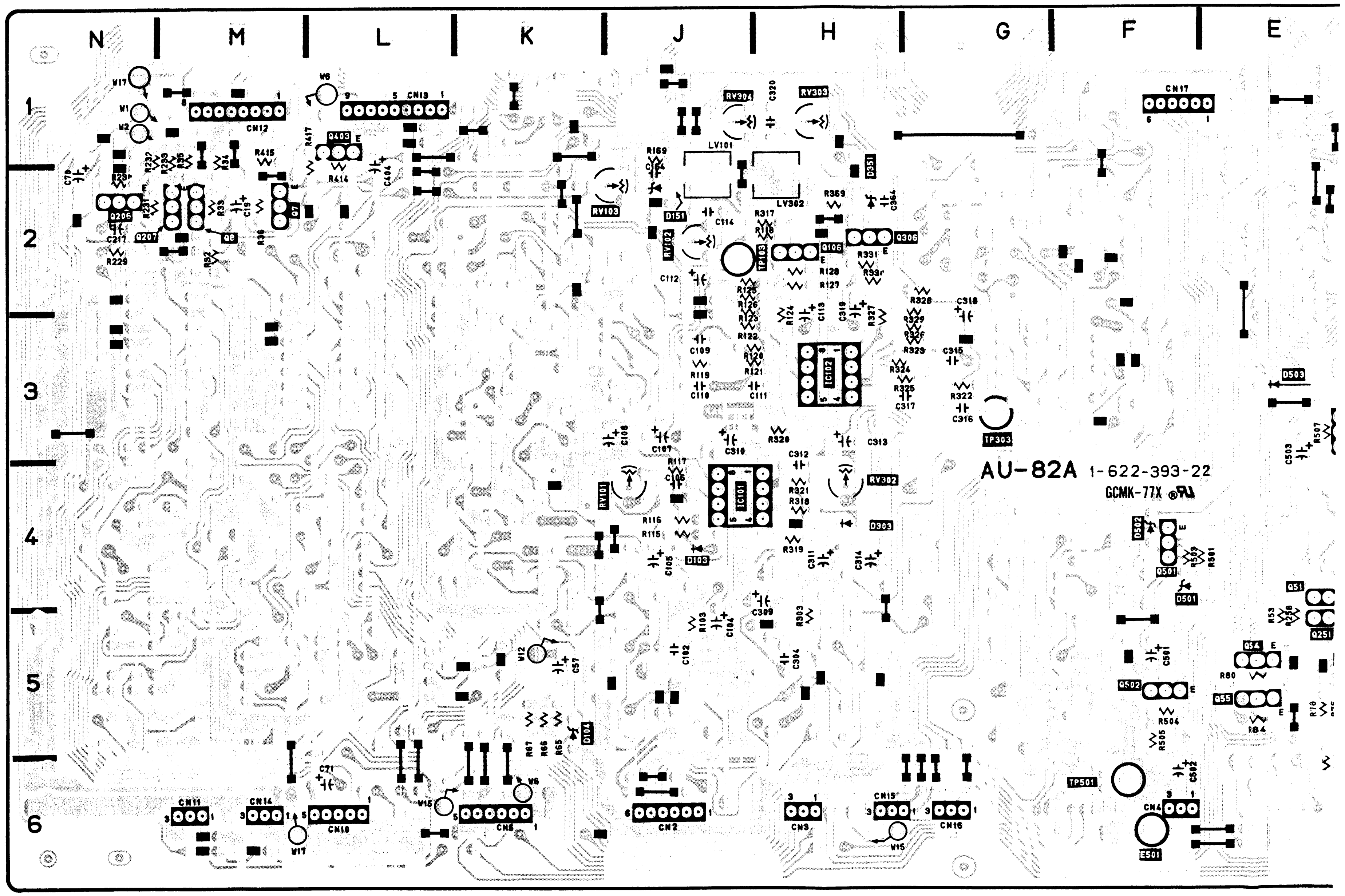
AU-82A
1-622-393-22
VP-9000

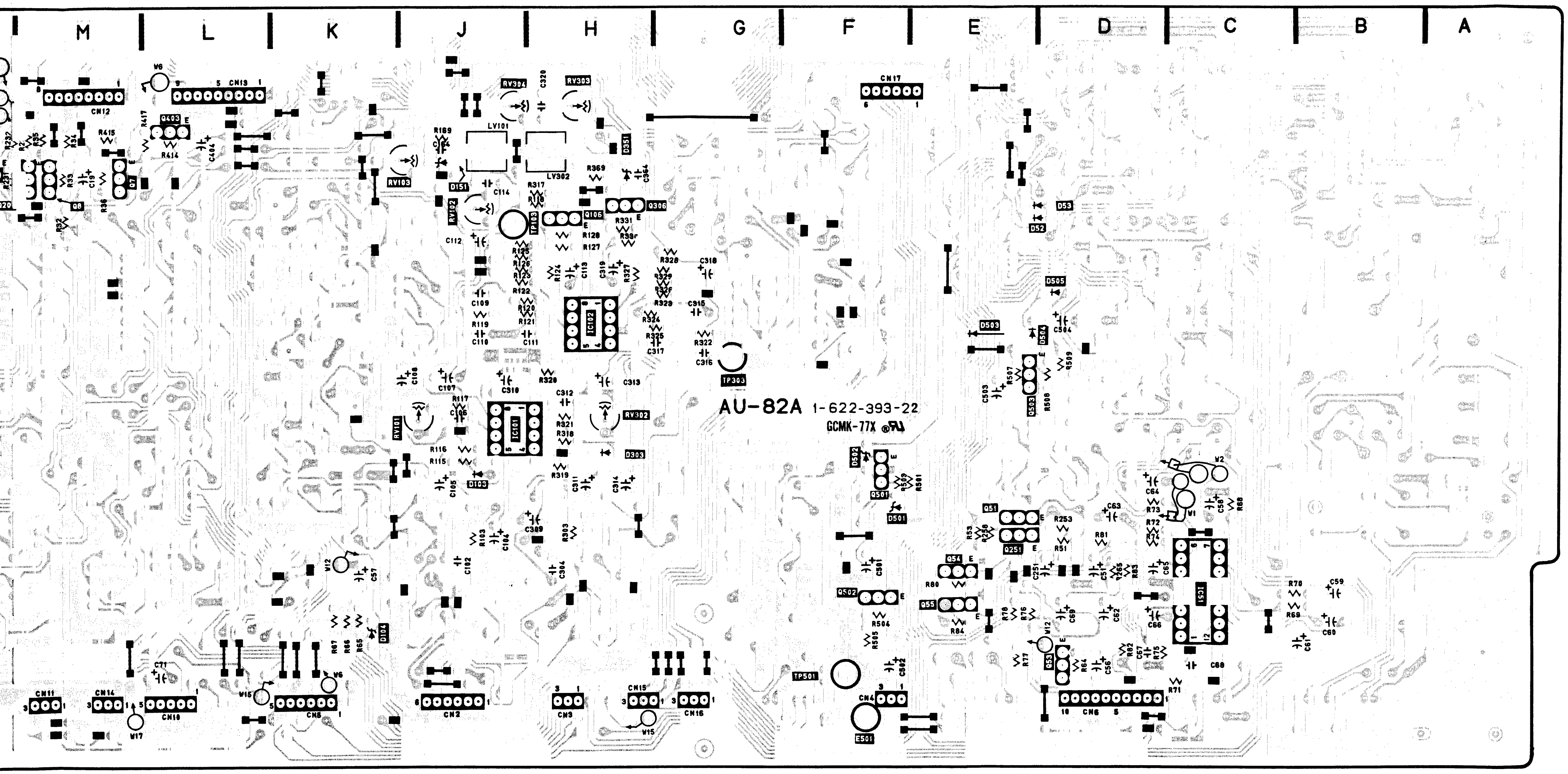
AU-82A:PB AMPLIFIER

UC;S/N 10251 thru 11250
J; S/N 10051 thru 10150

AU-82A (1-622-393-22)

CN2	J-6
CN3	H-6
CN4	F-6
CN5	K-6
CN6	D-6
CN10	L-6
CN11	M-6
CN12	M-1
CN13	L-1
CN14	M-6
CN15	H-6
CN16	G-6
CN17	F-1
D52	D-2
D53	D-2
D103	J-4
D104	K-5
D151	J-2
D303	H-4
D351	H-2
D501	F-4
D502	F-4
D503	E-3
D504	E-3
D505	D-3
E501	F-6
IC51	C-5
IC101	J-4
IC102	H-3
LV101	J-2
LV301	H-5
LV302	H-2
Q7	M-2
Q8	M-2
Q51	E-4
Q53	D-6
Q54	E-5
Q55	E-5
Q106	H-2
Q206	N-2
Q207	M-2
Q208	M-4
Q251	E-5
Q306	H-2
Q403	L-1
Q501	F-4
Q502	F-5
Q503	E-3
RV101	J-4
RV102	J-2
RV103	J-2
RV302	H-4
RV303	H-1
RV304	J-1
TP103	J-2
TP303	G-3
TP501	F-6


N
M
L
K
J
H
G
F
E
1
2
3
4
5
6
CN12
CN13
CN17
Q403
Q206
Q207
Q8
RV304
RV303
LV101
LV302
RV103
RV102
D151
TP103
Q106
Q306
D351
IC102
IC101
RV101
RV302
D303
D103
TP303
D503
Q501
D502
D501
Q51
Q251
Q54
Q55
Q502
D104
CN11
CN14
CN10
CN5
CN2
CN3
CN15
CN16
CN4
TP501
E501
AU-82A 1-622-393-22
GCMK-77X


M
L
K
J
H
G
F
E
D
C
B
A
AU-82A 1-622-393-22
GCMK-77X
CN17
CN12
CN13
CN11
CN14
CN18
CN5
CN2
CN3
CN15
CN16
CN4
CN6
IC101
IC102
IC51
RV101
RV102
RV103
RV302
RV303
RV304
LV101
LV302
TP101
TP303
TP501
E501
Q106
Q306
Q403
Q501
Q502
Q503
Q51
Q53
Q54
Q55
Q251
D151
D303
D351
D501
D502
D503
D504
D505
D52
D53
D103
D124

AU-82A

-COMPONENT SIDE-

1-622-393-22

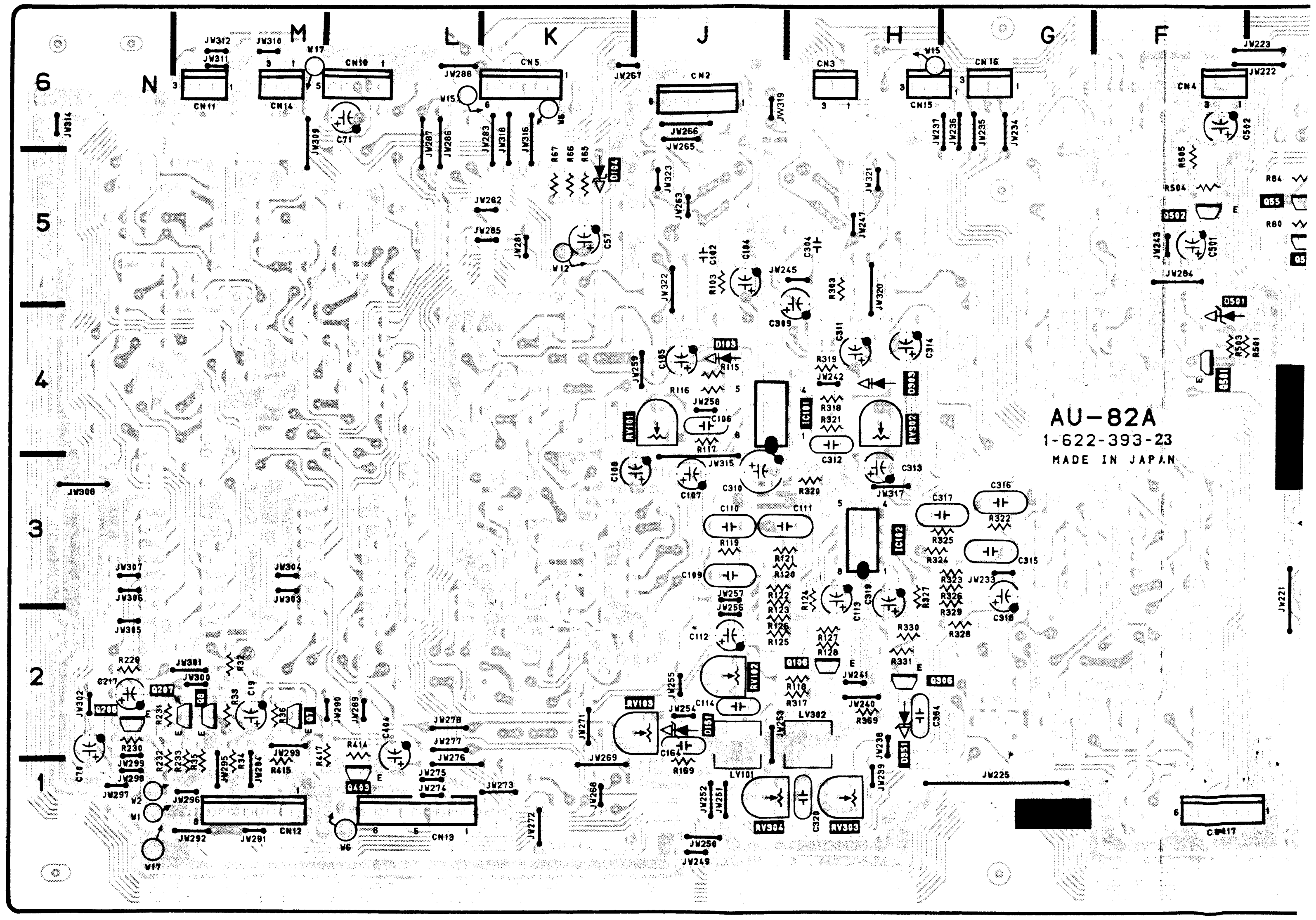
VP-9000

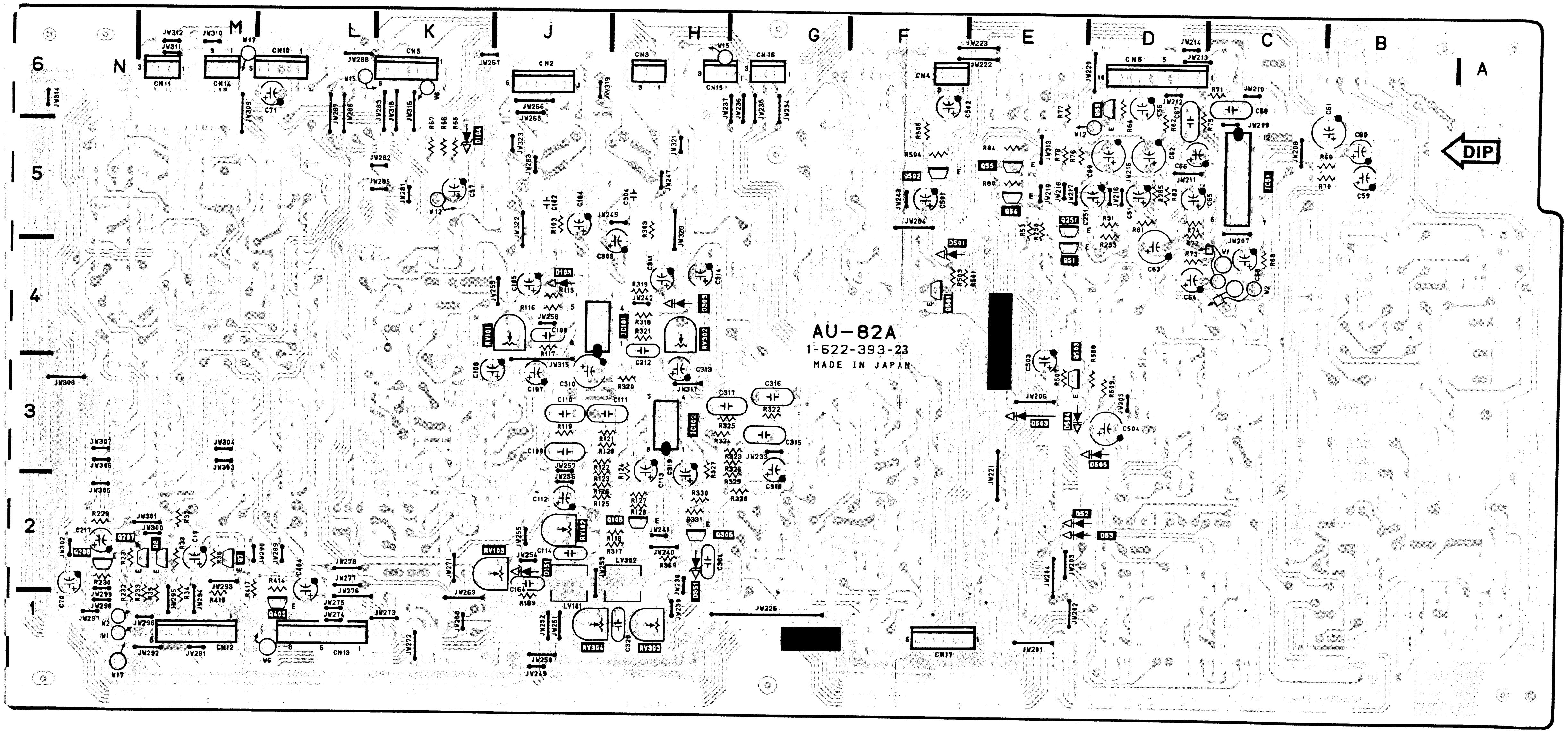
AU-82A: PB AMPLIFIER

UC; S/N 11251 and higher
J; S/N 10151 and higher

AU-82 (1-622-393-23)

CN2	J-6
CN3	H-6
CN4	F-6
CN5	K-6
CN6	D-6
CN10	L-6
CN11	M-6
CN12	M-1
CN13	L-1
CN14	M-6
CN15	H-6
CN16	G-6
CN17	F-1
D52	E-2
D53	E-2
D103	J-4
D104	K-5
D151	J-2
D303	H-4
D351	H-2
D501	F-4
D503	E-3
D504	E-3
D505	D-3
IC51	C-5
IC101	J-4
IC102	H-3
LV101	J-2
LV302	H-2
Q7	M-2
Q8	M-2
Q51	E-4
Q53	D-6
Q54	E-5
Q55	E-5
Q106	H-2
Q206	N-2
Q207	M-2
Q251	E-5
Q306	H-2
Q403	L-1
Q501	F-4
Q502	F-5
Q503	E-3
RV101	J-4
RV102	J-2
RV103	J-2
RV302	H-4
RV303	H-1
RV304	J-1


N
M
L
K
J
H
G
F
6
5
4
3
2
1
CN11
CN14
CN10
CN5
CN2
CN3
CN15
CN16
CN4
CN12
CN13
CN17
IC101
IC102
LV101
LV302
RV101
RV102
RV103
RV302
RV303
RV304
AU-82A
1-622-393-23
MADE IN JAPAN


N
M
L
K
J
H
G
F
E
D
C
B
A
6
5
4
3
2
1
DIP
AU-82A
1-622-393-23
MADE IN JAPAN
CN2
CN3
CN4
CN5
CN6
CN10
CN11
CN12
CN13
CN14
CN15
CN16
CN17
IC51
IC101
IC102
RV101
RV102
RV103
RV301
RV302
RV303
RV304
LV101
LV302

AU-82A

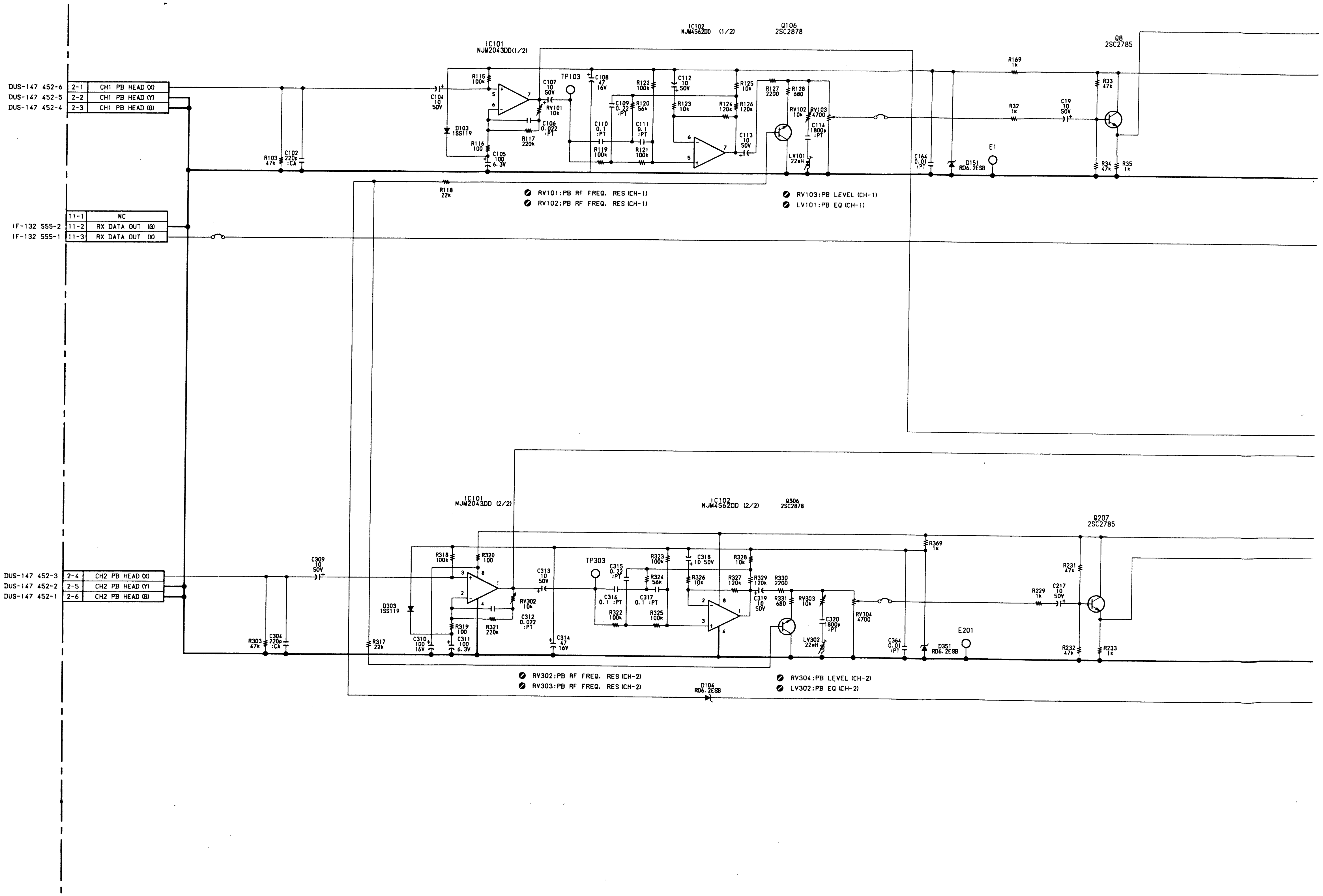
-COMPONENT SIDE-

1-622-393-23

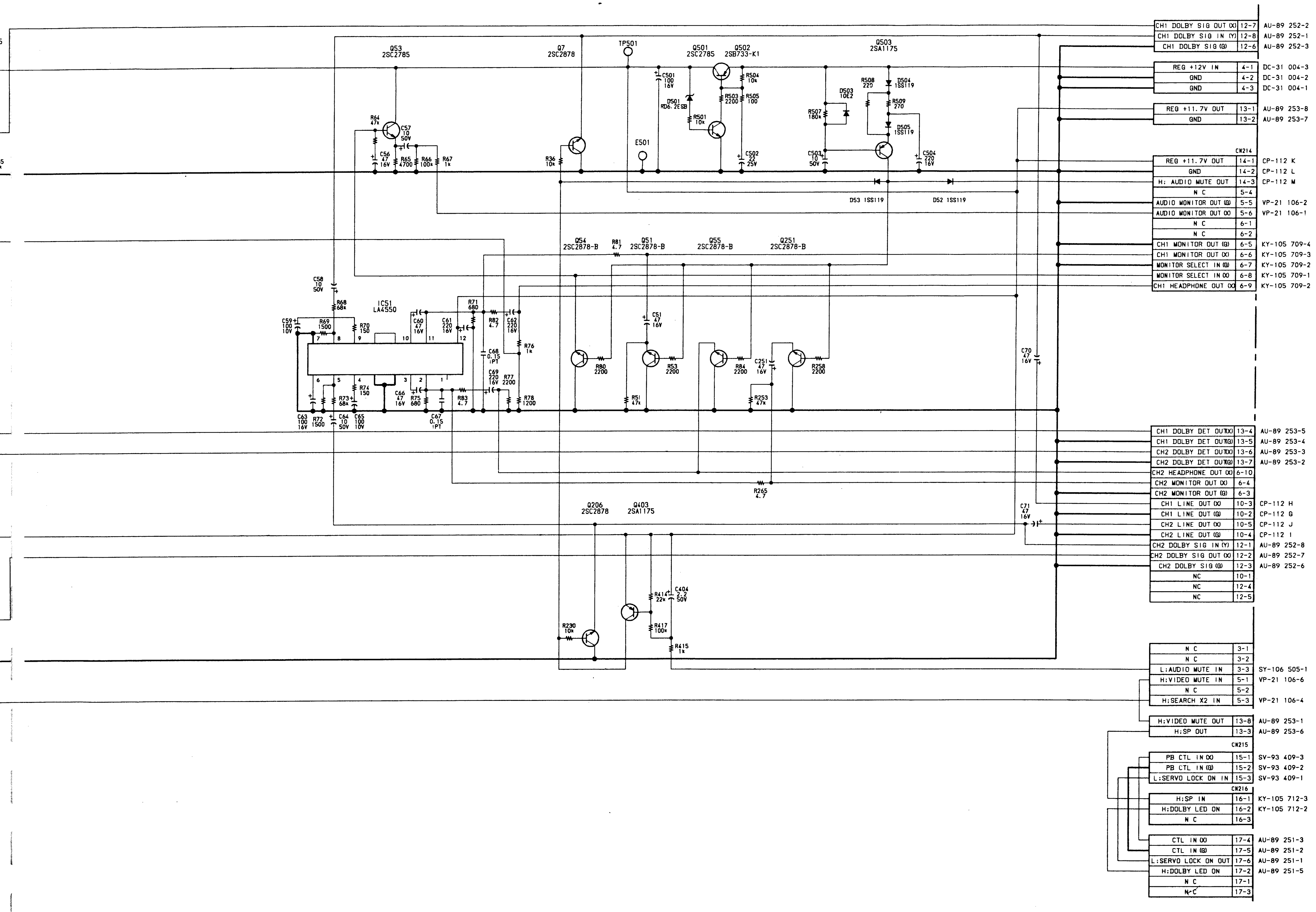
VP-9000

AU-82A: PB AMPLIFIER

UC; S/N 11251 and higher
J; S/N 10151 and higher


DUS-147 452-6
DUS-147 452-5
DUS-147 452-4
2-1 CH1 PB HEAD (X)
2-2 CH1 PB HEAD (Y)
2-3 CH1 PB HEAD (G)
11-1 NC
IF-132 555-2
IF-132 555-1
11-2 RX DATA OUT (G)
11-3 RX DATA OUT (X)
R103 47k
C102 220p :CA
IC101 NJM2043DD(1/2)
C104 10 50V
R115 100k
D103 1SS119
R116 100
C105 100 6.3V
R117 220k
C106 0.022 :PT
RV101 10k
C107 10 50V
TP103
C108 47 16V
R118 22k
IC102 NJM4562DD (1/2)
R122 100k
C109 0.22 :PT
R120 56k
C110 0.1 :PT
R119 100k
C111 0.1 :PT
R121 100k
C112 10 50V
R123 10k
R124 120k
R125 10k
R126 120k
C113 10 50V
Q106 2SC2878
R127 2200
R128 680
RV102 10k
RV103 4700
C114 1800p :PT
LV101 22mH
C164 0.01 :PT
D151 RD6.2ESB
E1
R169 1k
R32 1k
C19 10 50V
Q8 2SC2785
R33 47k
R34 47k
R35 1k
DUS-147 452-3
DUS-147 452-2
DUS-147 452-1
2-4 CH2 PB HEAD (X)
2-5 CH2 PB HEAD (Y)
2-6 CH2 PB HEAD (G)
R303 47k
C304 220p :CA
C309 10 50V
R317 22k
IC101 NJM2043DD (2/2)
R318 100k
R320 100
D303 1SS119
R319 100
C310 100 16V
C311 100 6.3V
R321 220k
RV302 10k
C312 0.022 :PT
C313 10 50V
C314 47 16V
TP303
C315 0.22 :PT
C316 0.1 :PT
R322 100k
C317 0.1 :PT
R325 100k
R323 100k
R324 56k
IC102 NJM4562DD (2/2)
C318 10 50V
R326 10k
R327 120k
R328 10k
R329 120k
C319 10 50V
Q306 2SC2878
R330 2200
R331 680
RV303 10k
C320 1800p :PT
LV302 22mH
RV304 4700
C364 0.01 :PT
R369 1k
D351 RD6.2ESB
E201
D104 RD6.2ESB
R229 1k
C217 10 50V
Q207 2SC2785
R231 47k
R232 47k
R233 1k

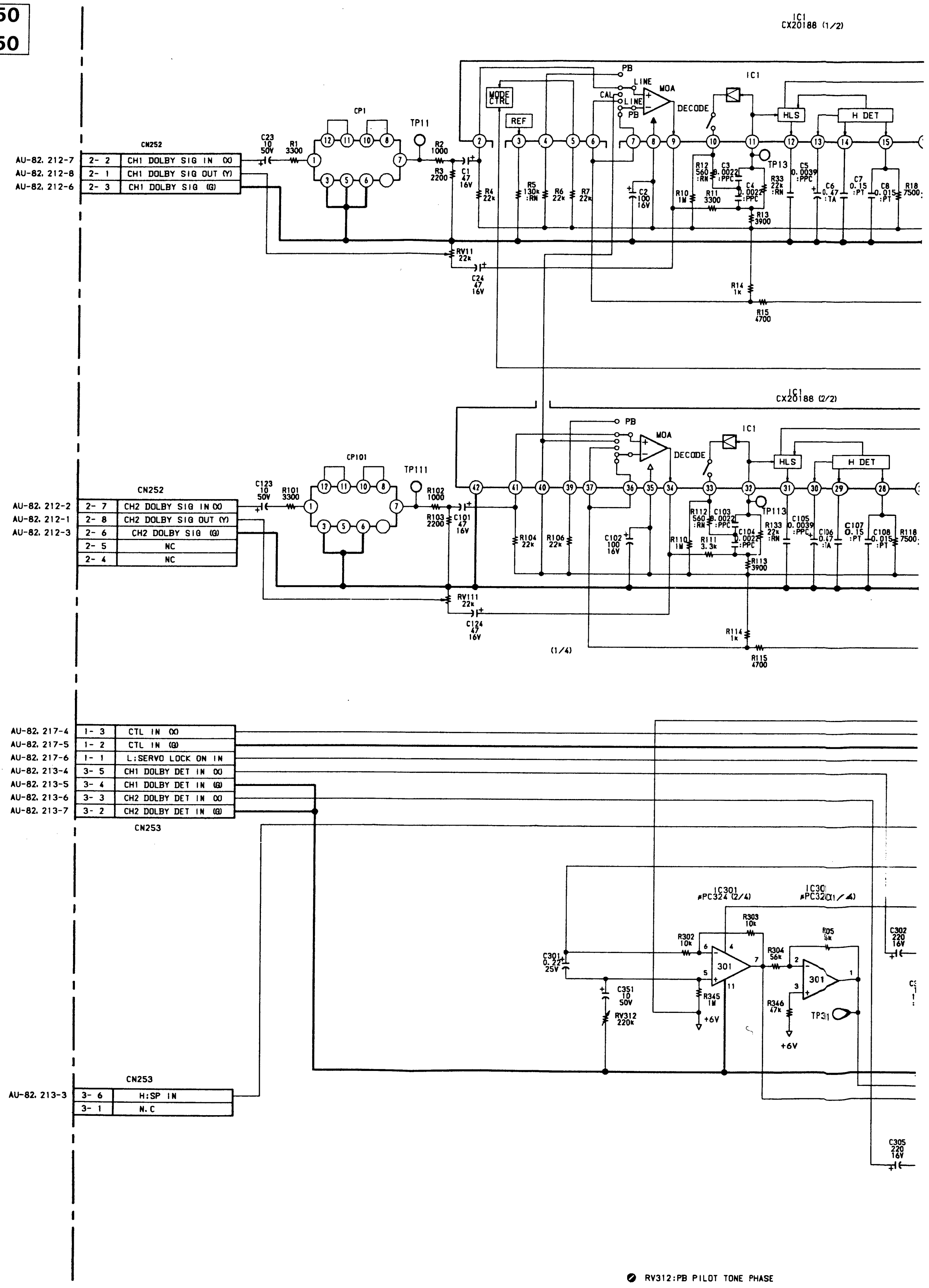
⊘ RV101:PB RF FREQ. RES (CH-1)
⊘ RV102:PB RF FREQ. RES (CH-1)
⊘ RV103:PB LEVEL (CH-1)
⊘ LV101:PB EQ (CH-1)
⊘ RV302:PB RF FREQ. RES (CH-2)
⊘ RV303:PB RF FREQ. RES (CH-2)
⊘ RV304:PB LEVEL (CH-2)
⊘ LV302:PB EQ (CH-2)

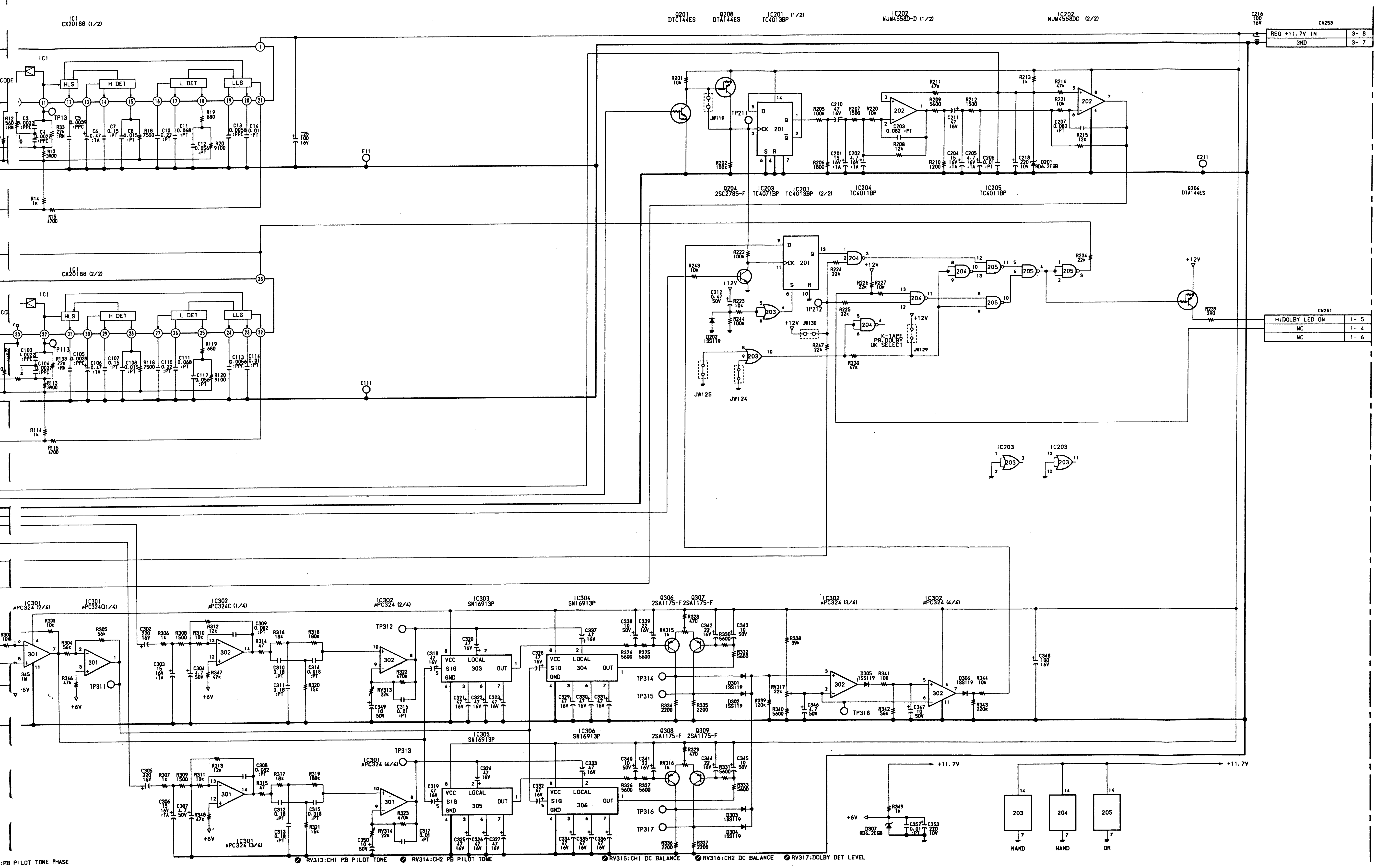

Q53
2SC2785
Q7
2SC2878
TP501
Q501
2SC2785
Q502
2SB733-K1
Q503
2SA1175
R64 47k
C57 10 50V
C56 47 16V
R65 4700
R66 100k
R67 1k
R36 10k
E501
C501 100 16V
D501 RD6.2ESB
R501 10k
R504 10k
R503 2200
R505 100
C502 22 25V
R508 220
D504 1SS119
D503 10E2
R507 180k
R509 270
D505 1SS119
C503 10 50V
C504 220 16V
D53 1SS119
D52 1SS119
Q54
2SC2878-B
R81 4.7
Q51
2SC2878-B
Q55
2SC2878-B
Q251
2SC2878-B
C58 10 50V
R68 68k
IC51
LA4550
C59 100 10V
R69 1500
R70 150
C60 47 16V
C61 220 16V
R71 680
R82 4.7
C62 220 16V
R76 1k
C51 47 16V
C68 0.15 :PT
C69 220 16V
R77 2200
R80 2200
R53 2200
R84 2200
C251 47 16V
R258 2200
C70 47 16V
R74 150
R73 68k
C66 47 16V
R75 680
R83 4.7
R78 1200
R51 47k
R253 47k
C63 100 16V
R72 1500
C64 10 50V
C65 100 10V
C67 0.15 :PT
R265 4.7
Q206
2SC2878
Q403
2SA1175
C71 47 16V
R414 22k
C404 2.2 50V
R417 100k
R415 1k
R230 10k
CH1 DOLBY SIG OUT (X) 12-7 AU-89 252-2
CH1 DOLBY SIG IN (Y) 12-8 AU-89 252-1
CH1 DOLBY SIG (G) 12-6 AU-89 252-3
REG +12V IN 4-1 DC-31 004-3
GND 4-2 DC-31 004-2
GND 4-3 DC-31 004-1
REG +11.7V OUT 13-1 AU-89 253-8
GND 13-2 AU-89 253-7
CN214
REG +11.7V OUT 14-1 CP-112 K
GND 14-2 CP-112 L
H: AUDIO MUTE OUT 14-3 CP-112 M
N C 5-4
AUDIO MONITOR OUT (G) 5-5 VP-21 106-2
AUDIO MONITOR OUT (X) 5-6 VP-21 106-1
N C 6-1
N C 6-2
CH1 MONITOR OUT (G) 6-5 KY-105 709-4
CH1 MONITOR OUT (X) 6-6 KY-105 709-3
MONITOR SELECT IN (G) 6-7 KY-105 709-2
MONITOR SELECT IN (X) 6-8 KY-105 709-1
CH1 HEADPHONE OUT (X) 6-9 KY-105 709-2
CH1 DOLBY DET OUT(X) 13-4 AU-89 253-5
CH1 DOLBY DET OUT(G) 13-5 AU-89 253-4
CH2 DOLBY DET OUT(X) 13-6 AU-89 253-3
CH2 DOLBY DET OUT(G) 13-7 AU-89 253-2
CH2 HEADPHONE OUT (X) 6-10
CH2 MONITOR OUT (X) 6-4
CH2 MONITOR OUT (G) 6-3
CH1 LINE OUT (X) 10-3 CP-112 H
CH1 LINE OUT (G) 10-2 CP-112 G
CH2 LINE OUT (X) 10-5 CP-112 J
CH2 LINE OUT (G) 10-4 CP-112 I
CH2 DOLBY SIG IN (Y) 12-1 AU-89 252-8
CH2 DOLBY SIG OUT (X) 12-2 AU-89 252-7
CH2 DOLBY SIG (G) 12-3 AU-89 252-6
NC 10-1
NC 12-4
NC 12-5
N C 3-1
N C 3-2
L:AUDIO MUTE IN 3-3 SY-106 505-1
H:VIDEO MUTE IN 5-1 VP-21 106-6
N C 5-2
H:SEARCH X2 IN 5-3 VP-21 106-4
H:VIDEO MUTE OUT 13-8 AU-89 253-1
H:SP OUT 13-3 AU-89 253-6
CN215
PB CTL IN (X) 15-1 SV-93 409-3
PB CTL IN (G) 15-2 SV-93 409-2
L:SERVO LOCK ON IN 15-3 SV-93 409-1
CN216
H:SP IN 16-1 KY-105 712-3
H:DOLBY LED ON 16-2 KY-105 712-2
N C 16-3
CTL IN (X) 17-4 AU-89 251-3
CTL IN (G) 17-5 AU-89 251-2
L:SERVO LOCK ON OUT 17-6 AU-89 251-1
H:DOLBY LED ON 17-2 AU-89 251-5
N C 17-1
N C 17-3

AU-82A
1-622-393-23
VP-9000

AU-89A: DOLBY

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050


CN252
AU-82, 212-7 | 2- 2 | CH1 DOLBY SIG IN (X)
AU-82, 212-8 | 2- 1 | CH1 DOLBY SIG OUT (Y)
AU-82, 212-6 | 2- 3 | CH1 DOLBY SIG (G)
IC1
CX20188 (1/2)
CP1
TP11
TP13
MODE CTRL
REF
CAL
LINE
PB
MOA
DECODE
HLS
H DET
RV11 22k
IC1
CX20188 (2/2)
CN252
AU-82, 212-2 | 2- 7 | CH2 DOLBY SIG IN (X)
AU-82, 212-1 | 2- 8 | CH2 DOLBY SIG OUT (Y)
AU-82, 212-3 | 2- 6 | CH2 DOLBY SIG (G)
2- 5 | NC
2- 4 | NC
CP101
TP111
TP113
RV111 22k
(1/4)
AU-82, 217-4 | 1- 3 | CTL IN (X)
AU-82, 217-5 | 1- 2 | CTL IN (G)
AU-82, 217-6 | 1- 1 | L:SERVO LOCK ON IN
AU-82, 213-4 | 3- 5 | CH1 DOLBY DET IN (X)
AU-82, 213-5 | 3- 4 | CH1 DOLBY DET IN (G)
AU-82, 213-6 | 3- 3 | CH2 DOLBY DET IN (X)
AU-82, 213-7 | 3- 2 | CH2 DOLBY DET IN (G)
CN253
IC301
μPC324 (2/4)
IC301
μPC324 (1/4)
RV312 220k
TP31
+6V
CN253
AU-82, 213-3 | 3- 6 | H:SP IN
3- 1 | N.C
RV312:PB PILOT TONE PHASE


IC1 CX20188 (1/2)
IC1 CX20188 (2/2)
HLS
H DET
L DET
LLS
TP13
TP113
E11
E111
Q201 DTC144ES
Q208 DTA144ES
IC201 (1/2) TC4013BP
IC202 NJM4558D-D (1/2)
IC202 NJM4558DD (2/2)
Q204 2SC2785-F
IC203 TC4071BP
IC201 TC4013BP (2/2)
IC204 TC4011BP
IC205 TC4011BP
Q206 DTA144ES
E211
TP211
TP212
JW119
JW124
JW125
JW129
JW130
D201 RD6.2ESB
D202 1SS119
K-TAPE PB DOLBY OK SELECT
CN253
REG +11.7V IN 3-8 AU-82.213-1
GND 3-7 AU-82.213-2
CN251
H:DOLBY LED ON 1-5 AU-82.217-2
NC 1-4
NC 1-6
+12V
IC301 μPC324 (2/4)
IC301 μPC324 (1/4)
IC302 μPC324C (1/4)
IC302 μPC324 (2/4)
IC303 SN16913P
IC304 SN16913P
IC305 SN16913P
IC306 SN16913P
Q306 2SA1175-F
Q307 2SA1175-F
Q308 2SA1175-F
Q309 2SA1175-F
IC302 μPC324 (3/4)
IC302 μPC324 (4/4)
IC301 μPC324 (4/4)
IC301 μPC324 (3/4)
TP311
TP312
TP313
TP314
TP315
TP316
TP317
TP318
VCC LOCAL SIG OUT GND
D301 1SS119
D302 1SS119
D303 1SS119
D304 1SS119
D305 1SS119
D306 1SS119
D307 RD6.2ESB
+11.7V
+6V
203 NAND
204 NAND
205 OR
:PB PILOT TONE PHASE
RV313:CH1 PB PILOT TONE
RV314:CH2 PB PILOT TONE
RV315:CH1 DC BALANCE
RV316:CH2 DC BALANCE
RV317:DOLBY DET LEVEL

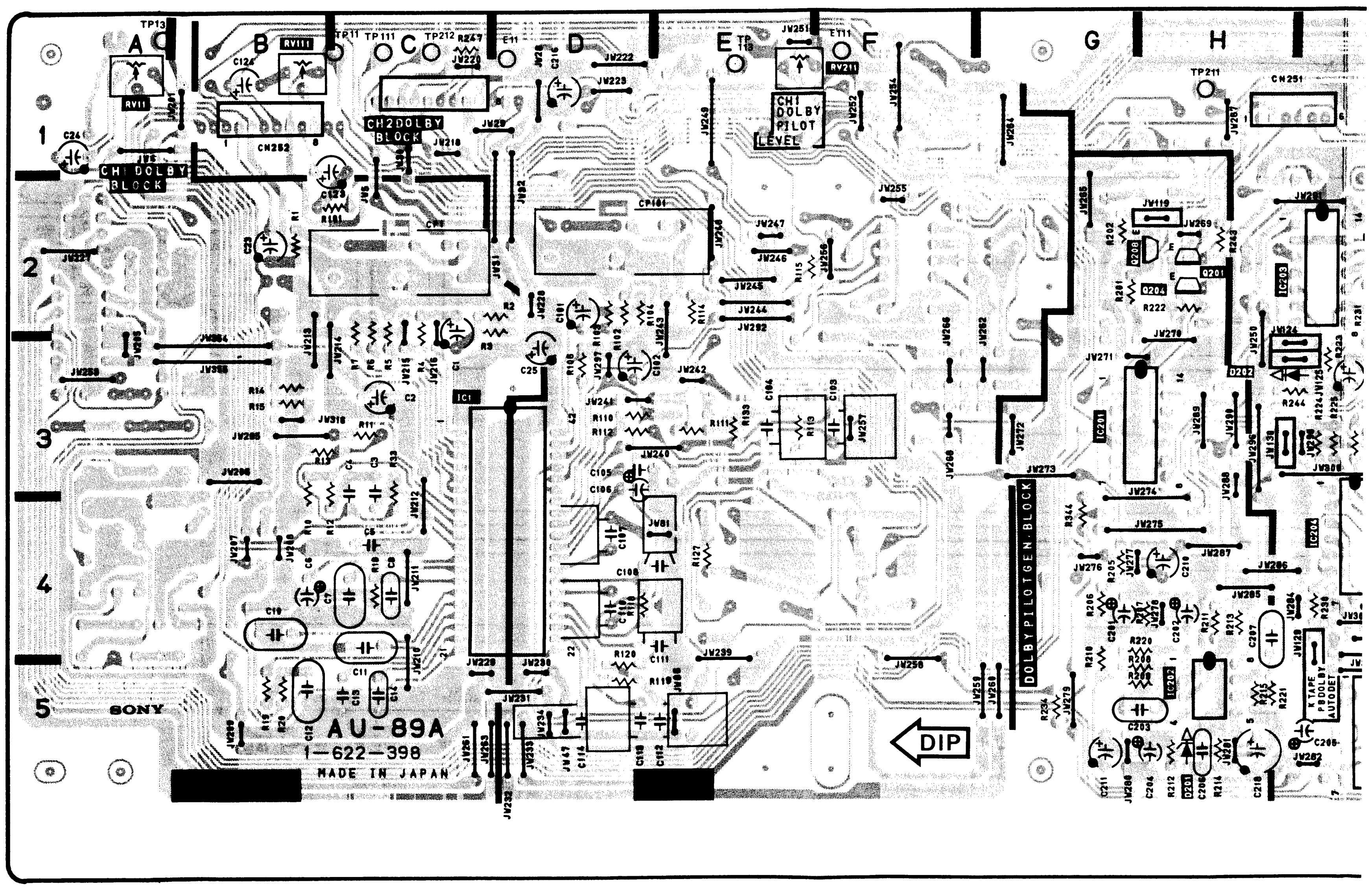
AU-89A
1-622-398-21
VP-9000

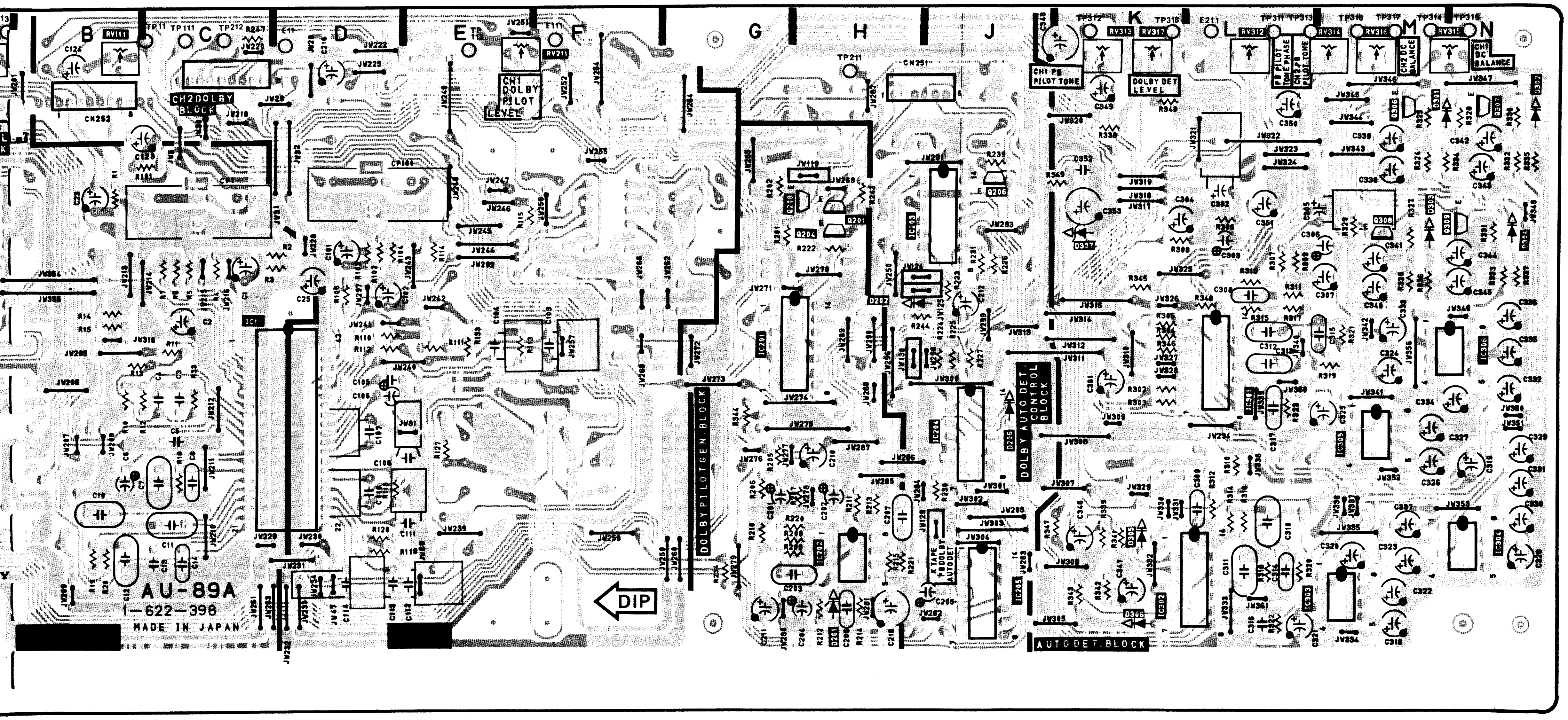
AU-89A: DOLBY

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

AU-89A (1-622-398-21)

CN251	H-1
CN252	B-1
CN253	C-1
CP1	C-2
CP101	D-2
D201	H-5
D202	H-3
D206	J-4
D301	M-1
D302	N-1
D303	M-2
D304	N-2
D305	K-5
D306	K-5
D307	K-2
E11	D-1
E111	F-1
E211	L-1
IC1	D-4
IC201	H-3
IC202	H-5
IC203	J-2
IC204	J-4
IC205	J-5
IC301	L-3
IC302	L-5
IC303	M-5
IC304	N-5
IC305	M-4
IC306	N-3
Q201	H-2
Q204	H-2
Q206	J-2
Q208	H-2
Q306	M-1
Q307	N-1
Q308	M-2
Q309	N-2
RV11	A-1
RV111	B-1
RV211	E-1
RV312	L-1
RV313	K-1
RV314	M-1
RV315	N-1
RV316	M-1
RV317	K-1
TP11	C-1
TP13	A-1
TP111	C-1
TP112	E-1
TP113	E-1
TP211	H-1
TP212	C-1
TP311	L-1
TP312	K-1
TP313	L-1
TP314	M-1
TP315	N-1
TP316	M-1
TP317	M-1
TP318	K-1


A
B
C
D
E
F
G
H
1
2
3
4
5
CH1 DOLBY BLOCK
CH2 DOLBY BLOCK
CH1 DOLBY PILOT LEVEL
DOLBY PILOT GEN. BLOCK
SONY
AU-89A
1-622-398
MADE IN JAPAN
DIP
IC1
CN251
CN252
CP1
CP101


B
C
D
E
F
G
H
J
K
L
M
N
CH2 DOLBY BLOCK
CH1 DOLBY PILOT LEVEL
CH1 PB PILOT TONE
DOLBY DET LEVEL
PB PILOT TONE PHASE
CH2 PB PILOT TONE
CH2 DC BALANCE
CH1 DC BALANCE
DOLBY PILOT GEN BLOCK
DOLBY AUTO DET CONTROL BLOCK
AUTO DET. BLOCK
DIP
AU-89A
1-622-398
MADE IN JAPAN

AU -89A

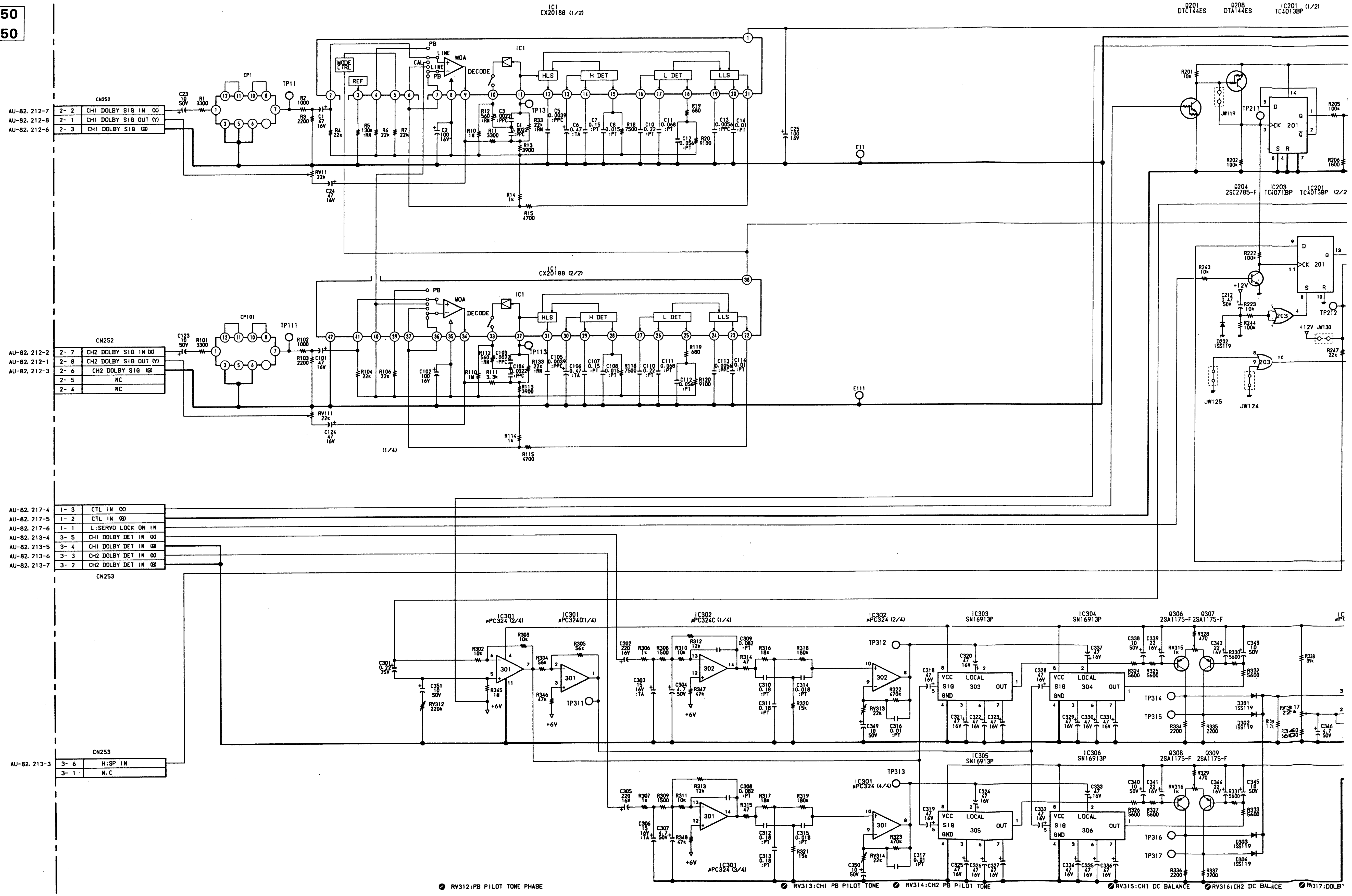
-COMPONENT SIDE-

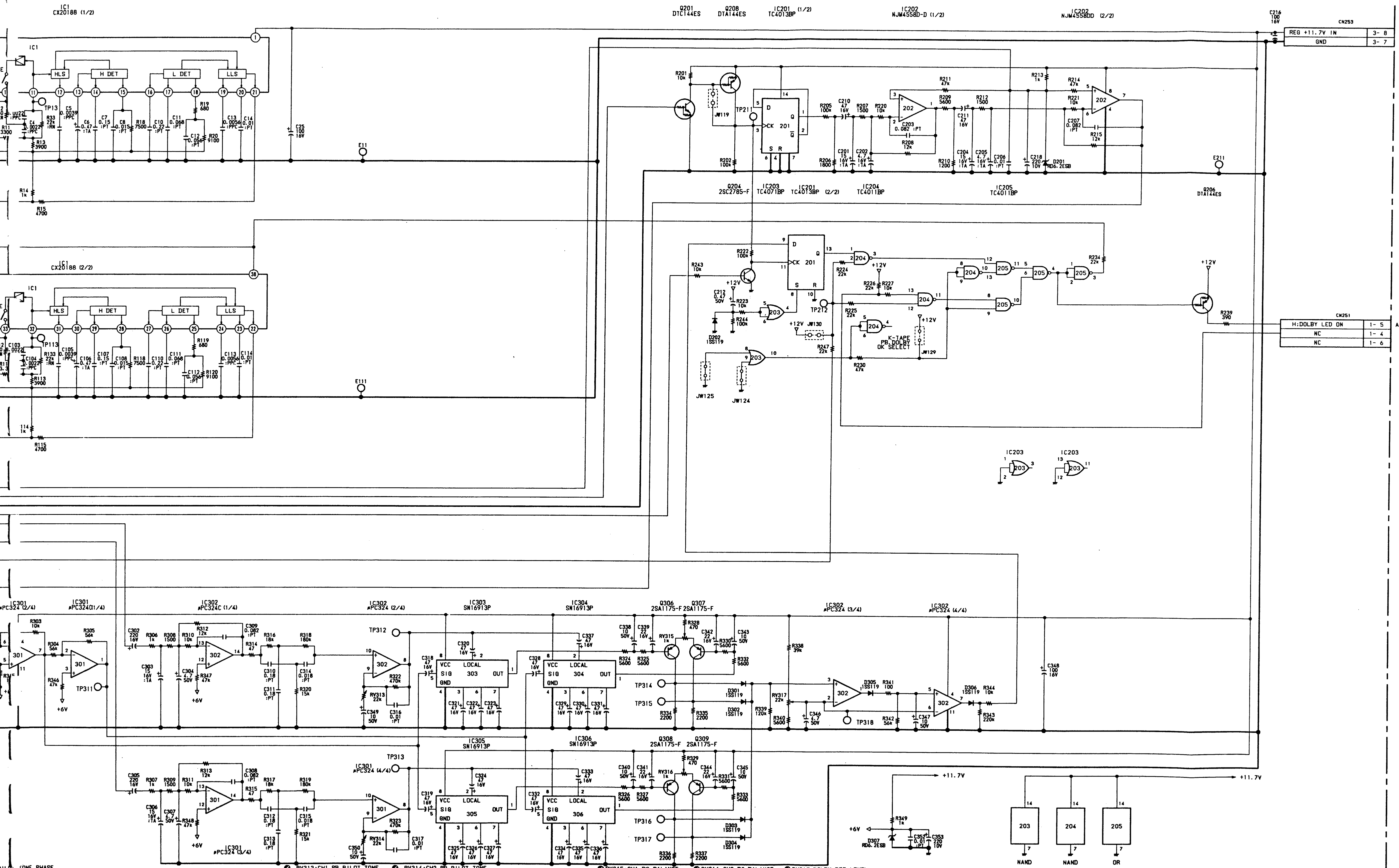
1-622-398-21

VP-9000

AU-89A: DOLBY

UC; S/N 10251 thru 10850
J; S/N 10051 thru 10150


IC1 CX20188 (1/2)
IC1 CX20188 (2/2)
CN252
AU-82. 212-7 2-2 CH1 DOLBY SIG IN (X)
AU-82. 212-8 2-1 CH1 DOLBY SIG OUT (Y)
AU-82. 212-6 2-3 CH1 DOLBY SIG (G)
AU-82. 212-2 2-7 CH2 DOLBY SIG IN (X)
AU-82. 212-1 2-8 CH2 DOLBY SIG OUT (Y)
AU-82. 212-3 2-6 CH2 DOLBY SIG (G)
2-5 NC
2-4 NC
AU-82. 217-4 1-3 CTL IN (X)
AU-82. 217-5 1-2 CTL IN (G)
AU-82. 217-6 1-1 L:SERVO LOCK ON IN
AU-82. 213-4 3-5 CH1 DOLBY DET IN (X)
AU-82. 213-5 3-4 CH1 DOLBY DET IN (G)
AU-82. 213-6 3-3 CH2 DOLBY DET IN (X)
AU-82. 213-7 3-2 CH2 DOLBY DET IN (G)
CN253
AU-82. 213-3 3-6 H:SP IN
3-1 N.C
MODE CTRL
REF
MOA
DECODE
HLS
H DET
L DET
LLS
PB
LINE
CAL
Q201 DTC144ES
Q208 DTA144ES
IC201 TC4013BP (1/2)
Q204 2SC2785-F
IC203 TC4071BP
IC201 TC4013BP (2/2)
IC301 μPC324 (2/4)
IC301 μPC324 (1/4)
IC302 μPC324C (1/4)
IC302 μPC324 (2/4)
IC303 SN16913P
IC304 SN16913P
IC305 SN16913P
IC306 SN16913P
IC301 μPC324 (4/4)
IC301 μPC324 (3/4)
Q306 2SA1175-F
Q307 2SA1175-F
Q308 2SA1175-F
Q309 2SA1175-F
VCC LOCAL
SIG OUT
GND
TP11 TP111 TP13 TP113 TP211 TP212 TP311 TP312 TP313 TP314 TP315 TP316 TP317
E11 E111
JW119 JW124 JW125 JW130
+12V
+6V
RV312:PB PILOT TONE PHASE
RV313:CH1 PB PILOT TONE
RV314:CH2 PB PILOT TONE
RV315:CH1 DC BALANCE
RV316:CH2 DC BALANCE
RV317:DOLB


IC1 CX20188 (1/2)
IC1 CX20188 (2/2)
HLS
H DET
L DET
LLS
TP13
TP113
E11
E111
Q201 DTC144ES
Q208 DTA144ES
IC201 TC4013BP (1/2)
IC202 NJM4558D-D (1/2)
IC202 NJM4558DD (2/2)
Q204 2SC2785-F
IC203 TC4071BP
IC201 TC4013BP (2/2)
IC204 TC4011BP
IC205 TC4011BP
Q206 DTA144ES
D201 RD6.2ESB
E211
TP211
TP212
JW119
JW124
JW125
JW129
JW130
K-TAPE PB DOLBY DK SELECT
+12V
CN253
REG +11.7V IN
GND
3-8
3-7
AU-82, 213-1
AU-82, 213-2
CN251
H:DOLBY LED ON
NC
NC
1-5
1-4
1-6
AU-82, 217-2
IC301 µPC324 (2/4)
IC301 µPC324 (1/4)
IC302 µPC324C (1/4)
IC302 µPC324 (2/4)
IC303 SN16913P
IC304 SN16913P
IC305 SN16913P
IC306 SN16913P
Q306 2SA1175-F
Q307 2SA1175-F
Q308 2SA1175-F
Q309 2SA1175-F
IC302 µPC324 (3/4)
IC302 µPC324 (4/4)
IC301 µPC324 (4/4)
IC301 µPC324 (3/4)
VCC LOCAL SIG GND OUT
TP311
TP312
TP313
TP314
TP315
TP316
TP317
TP318
RV313
RV314
RV315
RV316
RV317
D307 RD6.2ESB
+6V
+11.7V
203 NAND
204 NAND
205 OR
PILOT TONE PHASE

ⓞ RV313:CH1 PB PILOT TONE ⓞ RV314:CH2 PB PILOT TONE ⓞ RV315:CH1 DC BALANCE ⓞ RV316:CH2 DC BALANCE ⓞ RV317:DOLBY DET LEVEL

AU-89A
1-622-398-22
VP-9000

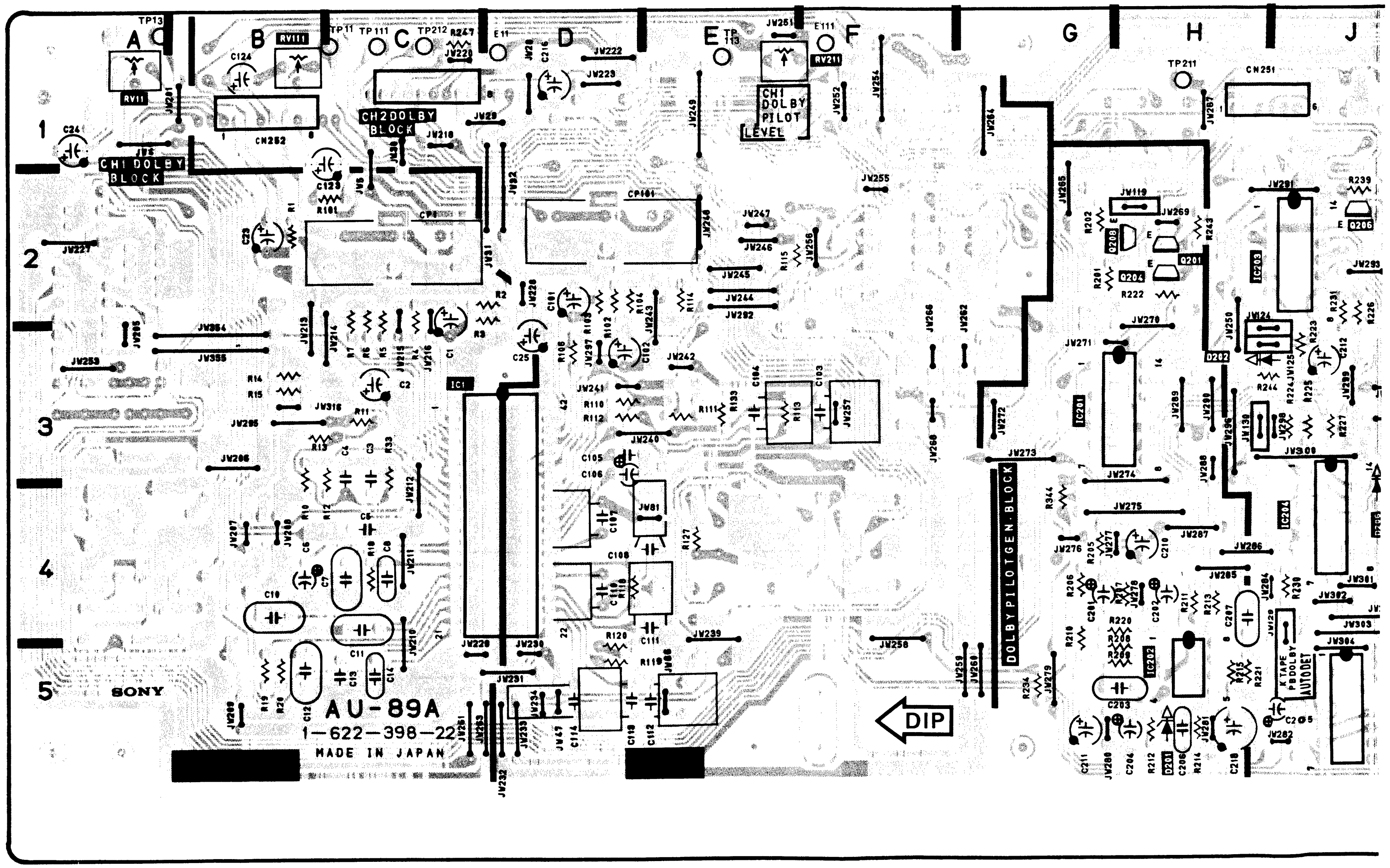
AU-89A: DOLBY

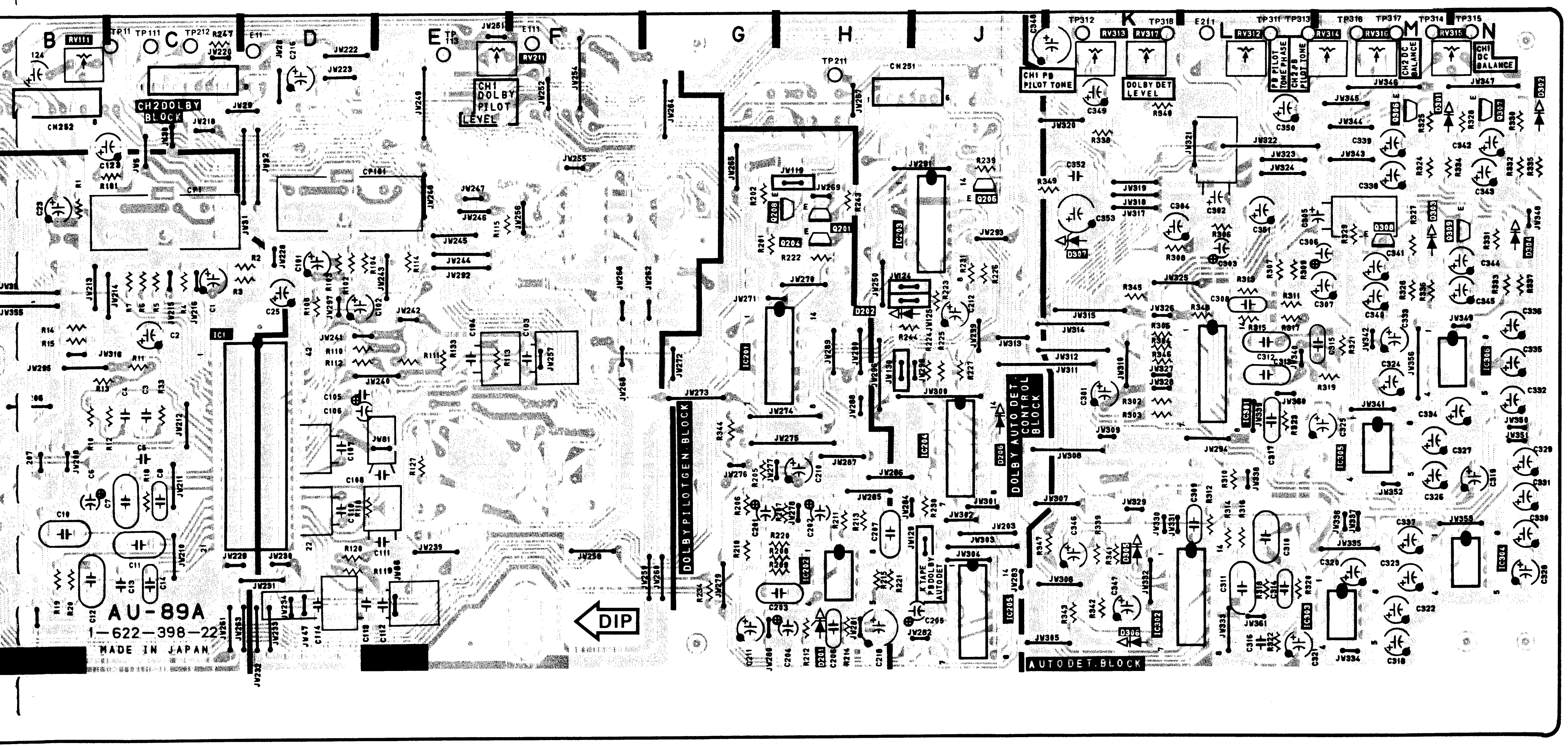
UC; S/N 10251 thru 10850
J; S/N 10051 thru 10150

AU-89A (1-622-398-22)

CN251	H-1
CN252	B-1
CN253	C-1
CP1	C-2
CP101	D-2
D201	H-5
D202	H-3
D206	J-4
D301	M-1
D302	N-1
D303	M-2
D304	N-2
D305	K-5
D306	K-5
D307	K-2
E11	D-1
E111	F-1
E211	L-1
IC1	D-4
IC201	H-3
IC202	H-5
IC203	J-2
IC204	J-4
IC205	J-5
IC301	L-3
IC302	L-5
IC303	M-5
IC304	N-5
IC305	M-4
IC306	N-3
Q201	H-2
Q204	H-2
Q206	J-2
Q208	H-2
Q306	M-1
Q307	N-1
Q308	M-2
Q309	N-2
RV11	A-1
RV111	B-1
RV211	E-1
RV312	L-1
RV313	K-1
RV314	M-1
RV315	N-1
RV316	M-1
RV317	K-1

TP11	C-1
TP13	A-1
TP111	C-1
TP112	E-1
TP113	E-1
TP211	H-1
TP212	C-1
TP311	L-1
TP312	K-1
TP313	L-1
TP314	M-1
TP315	N-1
TP316	M-1
TP317	M-1
TP318	K-1


A
B
C
D
E
F
G
H
J
1
2
3
4
5
CH1 DOLBY BLOCK
CH2 DOLBY BLOCK
CH1 DOLBY PILOT LEVEL
DOLBY PILOT GEN. BLOCK
CN251
CN252
CP1
CP101
IC1
TP211
SONY
AU-89A
1-622-398-22
MADE IN JAPAN
DIP


B
C
D
E
F
G
H
J
K
L
M
N
CH2 DOLBY BLOCK
CH1 DOLBY PILOT LEVEL
DOLBY PILOT GEN. BLOCK
DOLBY AUTO DET. CONTROL BLOCK
AUTO DET. BLOCK
CH1 PB PILOT TONE
DOLBY DET LEVEL
PB PILOT TONE PHASE
CH1 PB PILOT TONE
CH2 DC BALANCE
CH1 DC BALANCE
DIP
AU-89A
1-622-398-22
MADE IN JAPAN
IC1
IC201
IC202
IC203
IC204
IC205
IC301
IC302
IC303
IC304
IC305
IC306
RV111
RV211
RV312
RV313
RV314
RV315
RV316
RV317
CN251
CN252
CP101
TP111
TP211
TP212
TP312
TP313
TP314
TP315
TP316
TP317
TP318

AU-89A

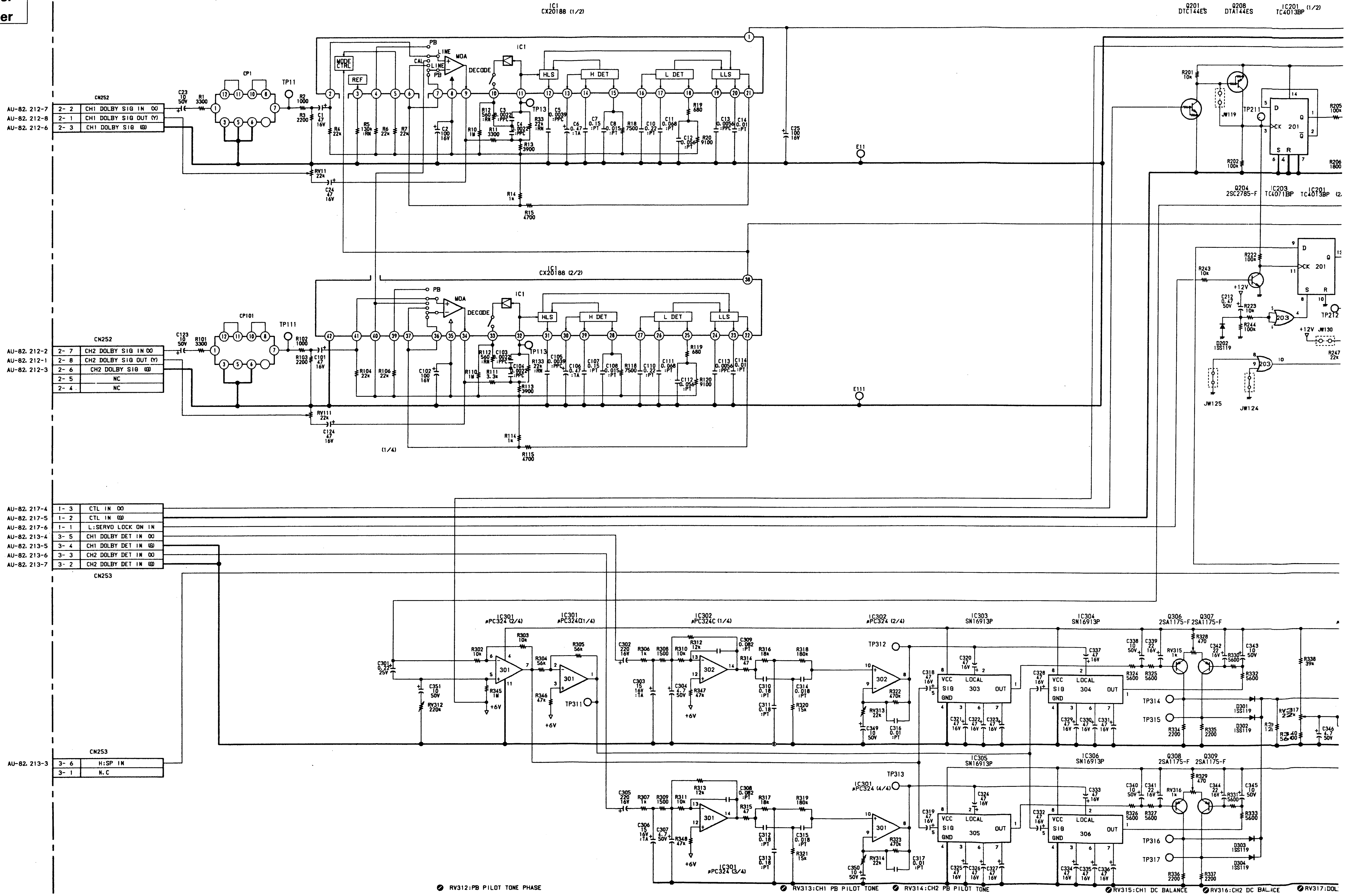
-COMPONENT SIDE-

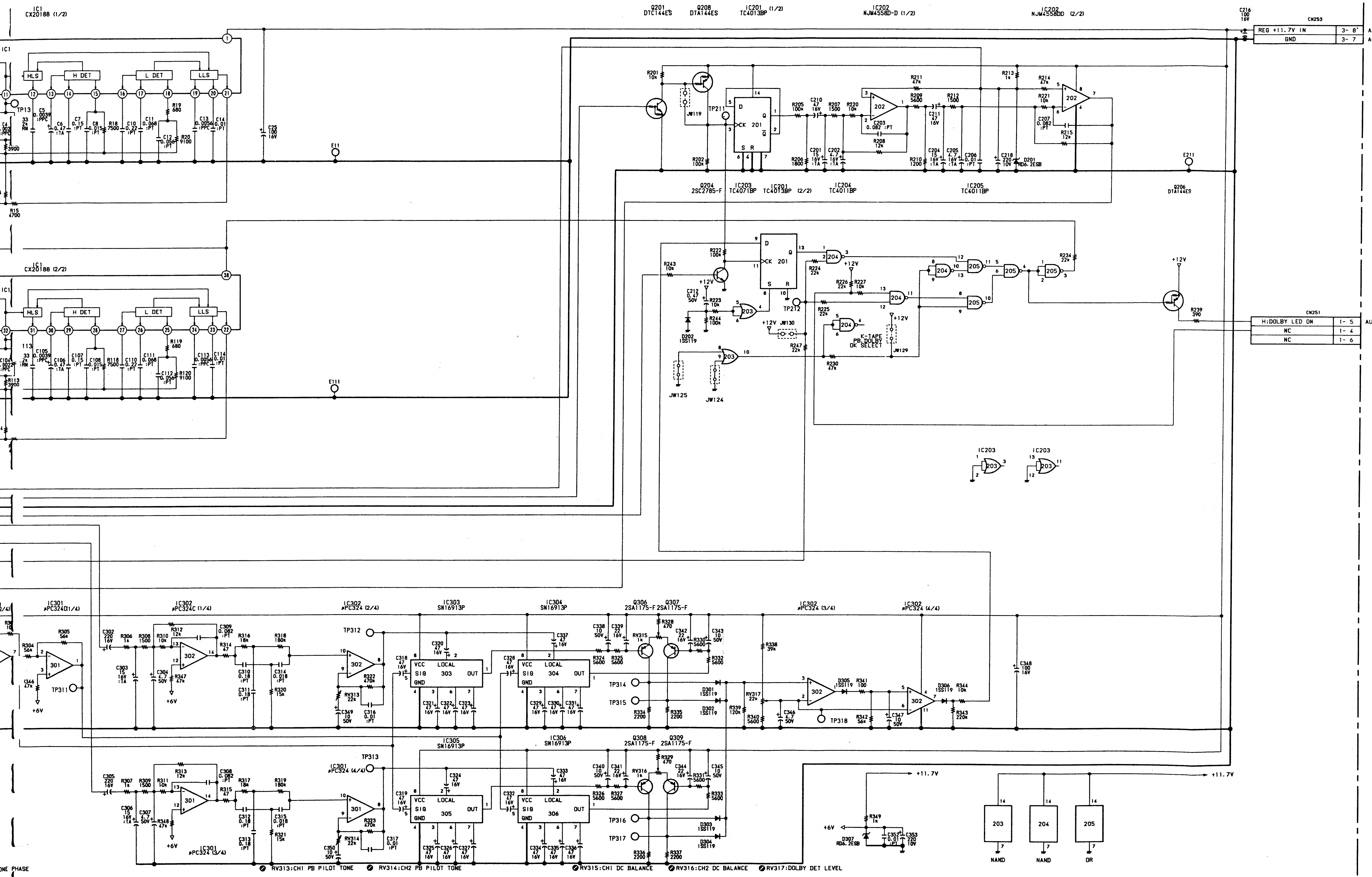
1-622-398-22

VP-9000

AU-89A: DOLBY

UC; S/N 10851 and higher
J; S/N 10151 and higher


IC1 CX20188 (1/2)
IC1 CX20188 (2/2)
CN252
AU-82, 212-7 | 2- 2 | CH1 DOLBY SIG IN (X)
AU-82, 212-8 | 2- 1 | CH1 DOLBY SIG OUT (Y)
AU-82, 212-6 | 2- 3 | CH1 DOLBY SIG (G)
AU-82, 212-2 | 2- 7 | CH2 DOLBY SIG IN (X)
AU-82, 212-1 | 2- 8 | CH2 DOLBY SIG OUT (Y)
AU-82, 212-3 | 2- 6 | CH2 DOLBY SIG (G)
2- 5 | NC
2- 4 | NC
AU-82, 217-4 | 1- 3 | CTL IN (X)
AU-82, 217-5 | 1- 2 | CTL IN (G)
AU-82, 217-6 | 1- 1 | L:SERVO LOCK ON IN
AU-82, 213-4 | 3- 5 | CH1 DOLBY DET IN (X)
AU-82, 213-5 | 3- 4 | CH1 DOLBY DET IN (G)
AU-82, 213-6 | 3- 3 | CH2 DOLBY DET IN (X)
AU-82, 213-7 | 3- 2 | CH2 DOLBY DET IN (G)
CN253
AU-82, 213-3 | 3- 6 | H:SP IN
3- 1 | N.C
CP1
CP101
MODE CTRL
REF
PB
LINE
CAL
MOA
DECODE
HLS
H DET
L DET
LLS
Q201 DTC144ES
Q208 DTA144ES
IC201 TC4013BP (1/2)
Q204 2SC2785-F
IC203 TC4071BP
IC201 TC4013BP
IC301 μPC324 (2/4)
IC301 μPC324 (1/4)
IC302 μPC324C (1/4)
IC302 μPC324 (2/4)
IC301 μPC324 (4/4)
IC301 μPC324 (3/4)
IC303 SN16913P
IC304 SN16913P
IC305 SN16913P
IC306 SN16913P
Q306 2SA1175-F
Q307 2SA1175-F
Q308 2SA1175-F
Q309 2SA1175-F
VCC
LOCAL
SIG
GND
OUT
TP11
TP111
TP13
TP113
TP211
TP212
TP311
TP312
TP313
TP314
TP315
TP316
TP317
E11
E111
JW119
JW124
JW125
JW130
+12V
+6V
RV312:PB PILOT TONE PHASE
RV313:CH1 PB PILOT TONE
RV314:CH2 PB PILOT TONE
RV315:CH1 DC BALANCE
RV316:CH2 DC BALANCE
RV317:DOL


IC1 CX20188 (1/2)
IC1 CX20188 (2/2)
HLS
H DET
L DET
LLS
TP13
E11
E111
R15 4700
C25 100 16V
Q201 DTC144ES
Q208 DTA144ES
IC201 TC4013BP (1/2)
IC202 NJM4558D-D (1/2)
IC202 NJM4558DD (2/2)
Q204 2SC2785-F
IC203 TC4071BP
IC201 TC4013BP (2/2)
IC204 TC4011BP
IC205 TC4011BP
Q206 DTA144ES
TP211
TP212
JW119
JW125
JW124
JW130
JW129
E211
K-TAPE PB DOLBY OK SELECT
+12V
C216 100 16V
CN253
REG +11.7V IN
GND
3-8
3-7
AU-82.213-1
AU-82.213-2
CN251
H:DOLBY LED ON
NC
NC
1-5
1-4
1-6
AU-82.217-2
IC203
IC301 μPC324C (1/4)
IC302 μPC324C (1/4)
IC302 μPC324 (2/4)
IC303 SN16913P
IC304 SN16913P
Q306 2SA1175-F
Q307 2SA1175-F
IC302 μPC324 (3/4)
IC302 μPC324 (4/4)
IC305 SN16913P
IC306 SN16913P
Q308 2SA1175-F
Q309 2SA1175-F
IC301 μPC324 (4/4)
IC301 μPC324 (3/4)
VCC LOCAL SIG GND OUT
TP311
TP312
TP313
TP314
TP315
TP316
TP317
TP318
+6V
+11.7V
D307 RD6.2ESB
203
204
205
NAND
NAND
OR
ONE PHASE
RV313:CH1 PB PILOT TONE
RV314:CH2 PB PILOT TONE
RV315:CH1 DC BALANCE
RV316:CH2 DC BALANCE
RV317:DOLBY DET LEVEL

AU-89A

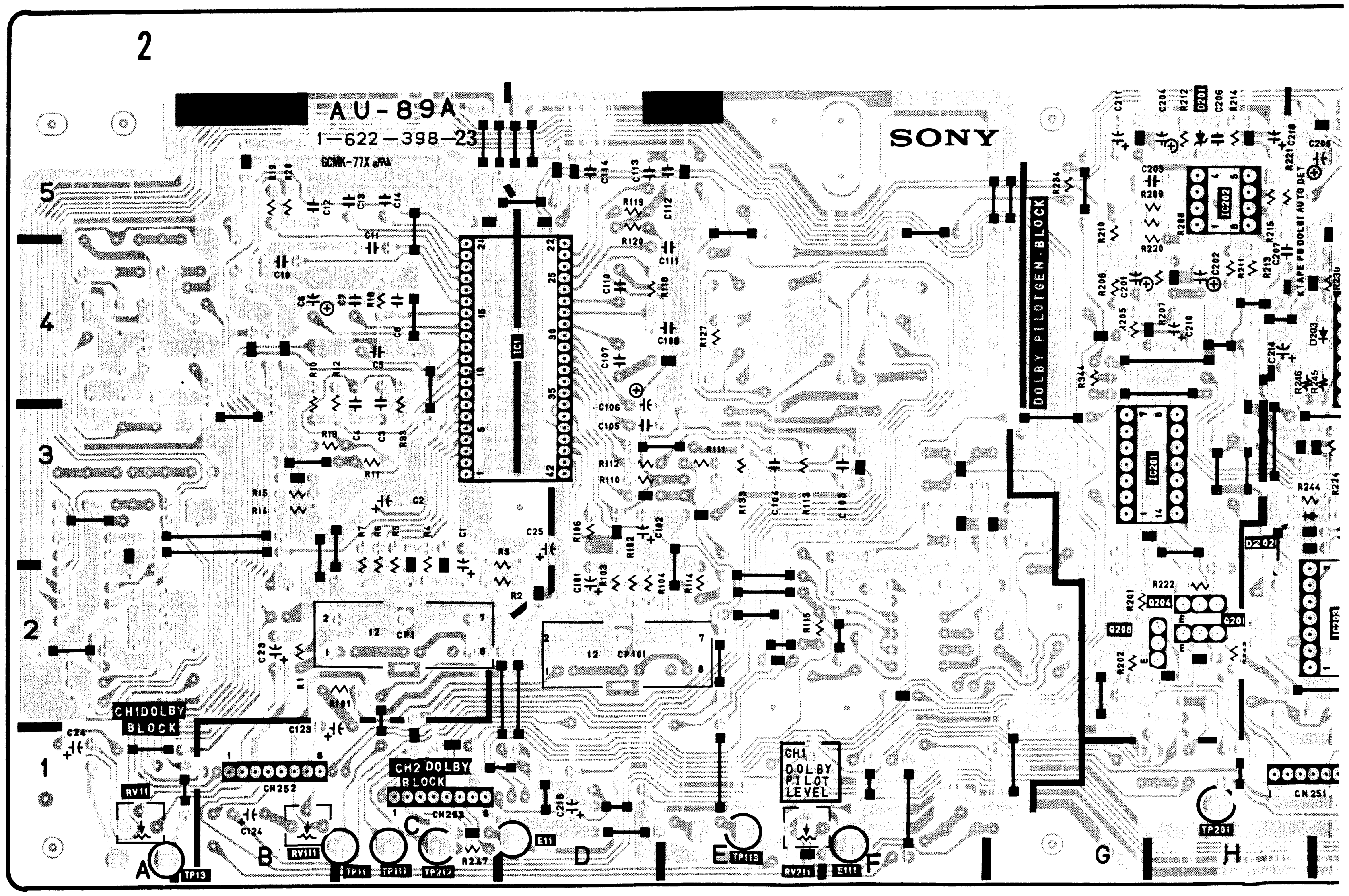
1-622-398-23
VP-9000

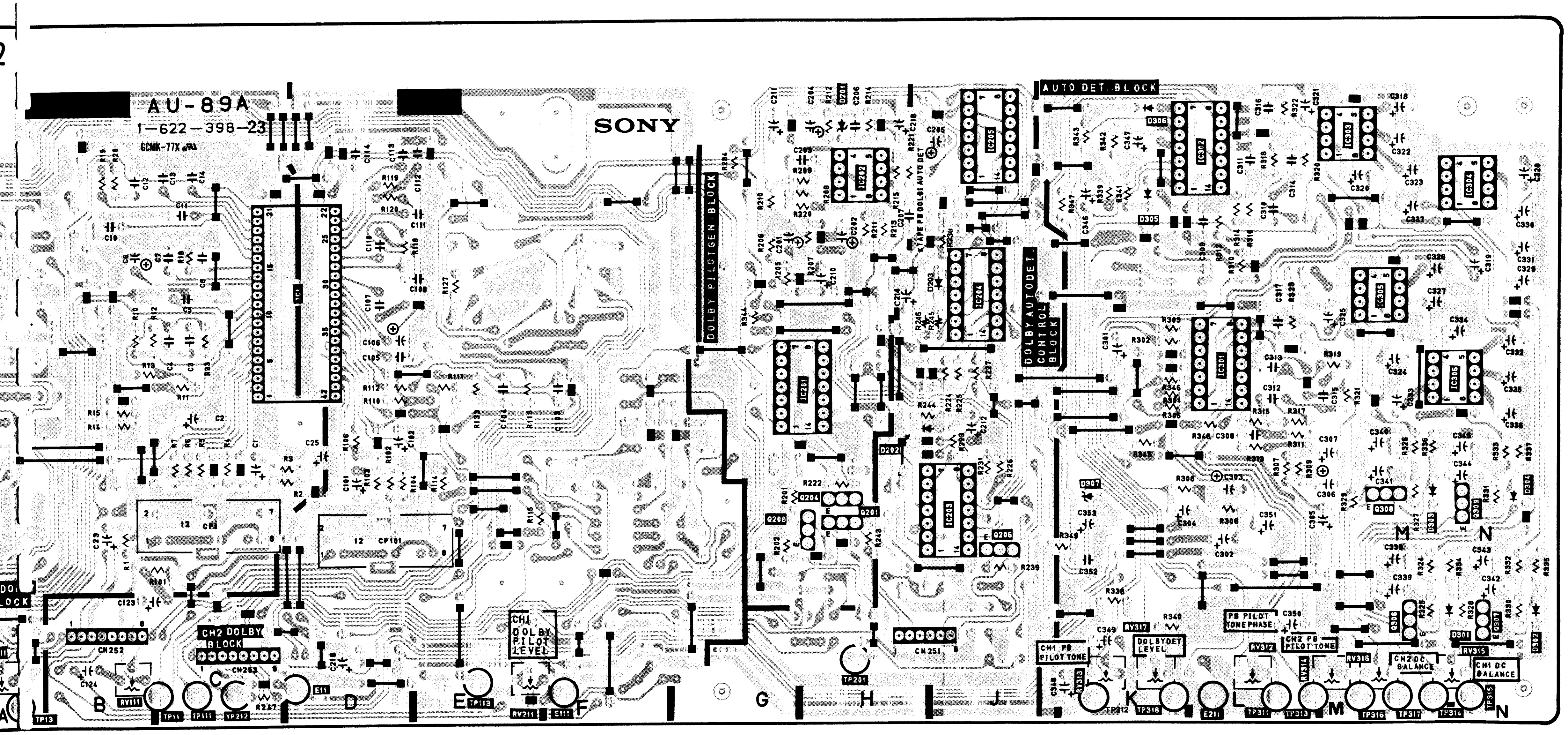
AU-89A: DOLBY

UC; S/N 10851 and higher
J; S/N 10151 and higher

AU-89A (1-622-398-23)

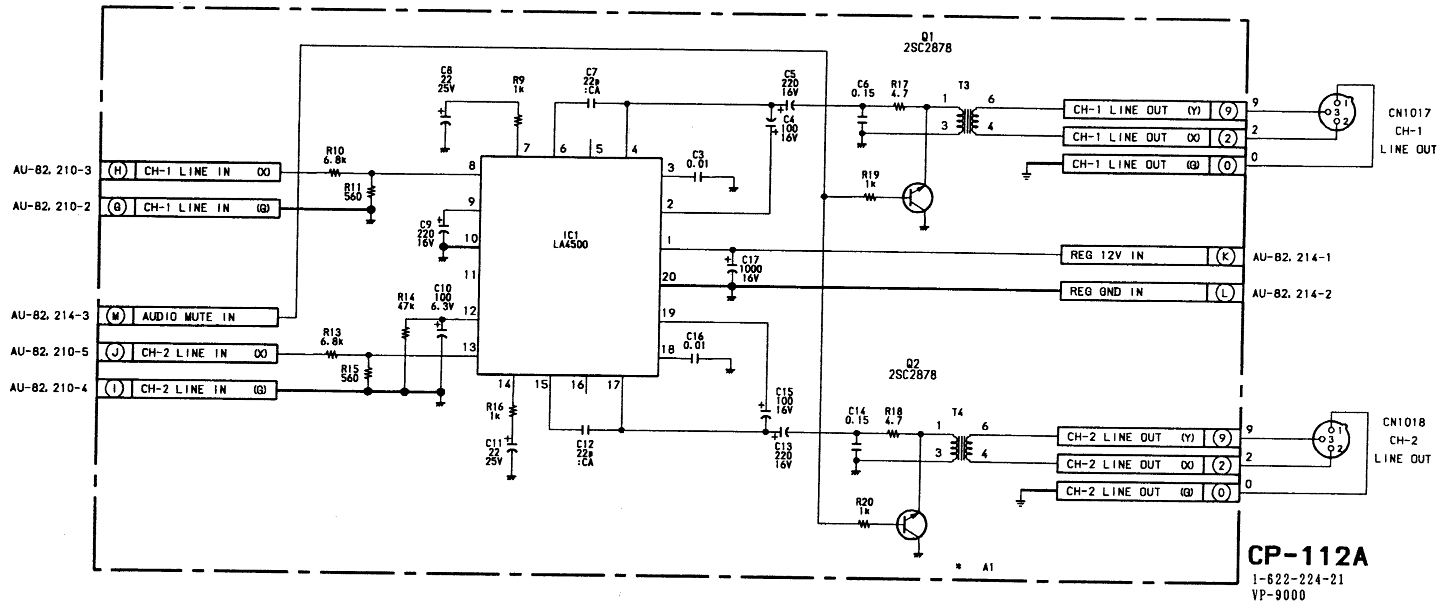
CN251	H-1
CN252	B-1
CN253	C-1
CP1	C-2
CP101	D-2
D201	H-5
D202	H-3
D203	J-4
D301	N-1
D302	N-1
D303	M-2
D304	N-2
D305	K-5
D306	K-5
D307	K-2
E11	D-1
E111	F-1
E211	L-1
IC1	D-4
IC201	H-3
IC202	H-5
IC204	J-4
IC205	J-5
IC301	L-3
IC302	L-5
IC303	M-5
IC304	N-5
IC305	M-4
IC306	N-3
Q201	H-2
Q204	H-2
Q206	J-2
Q306	M-1
Q307	N-1
Q308	M-2
Q309	N-2
RV11	A-1
RV111	B-1
RV211	E-1
RV311	L-1
RV313	K-1
RV314	M-1
RV315	N-1
RV316	M-1
RV317	K-1
TP11	C-1
TP13	A-1
TP111	C-1
TP113	E-1
TP201	H-1
TP212	C-1
TP311	L-1
TP312	K-1
TP313	L-1
TP314	M-1
TP315	N-1
TP316	M-1
TP317	M-1
TP318	K-1


2
AU-89A
1-622-398-23
SONY
DOLBY PILOTGEN. BLOCK
CH1 DOLBY BLOCK
CH2 DOLBY BLOCK
CH1 DOLBY PILOT LEVEL
IC1
CP1
CP101
CN252
CN253
CN251
TP13
TP11
TP111
TP212
TP113
TP201
RV11
RV111
RV211
E11
E111
5
4
3
2
1
A
B
C
D
E
F
G
H


AU-89A
1-622-398-23
SONY
DOLBY PILOT GEN. BLOCK
AUTO DET. BLOCK
DOLBY AUTO DET CONTROL BLOCK
CH2 DOLBY BLOCK
CH1 DOLBY PILOT LEVEL
CH1 PB PILOT TONE
DOLBY DET LEVEL
PB PILOT TONE PHASE
CH2 PB PILOT TONE
CH2 DC BALANCE
CH1 DC BALANCE
B
C
D
E
F
G
H
J
K
L
M
N

AU-89A
-COMPONENT SIDE-
1-622-398-23
VP-9000

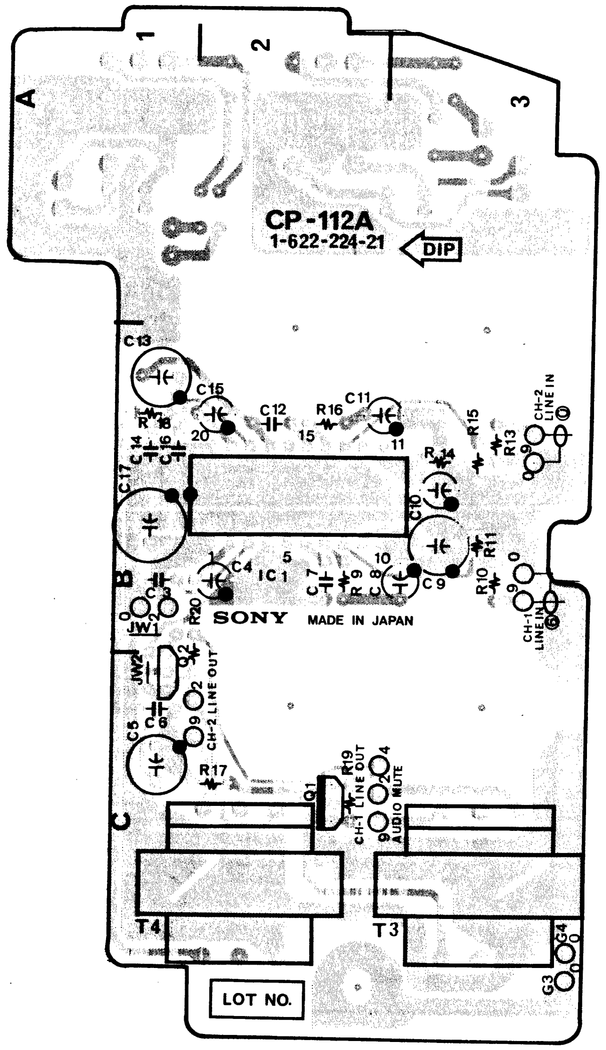
CP-112A: OUTPUT AMPLIFIER


AU-82, 210-3
H
CH-1 LINE IN (X)
AU-82, 210-2
G
CH-1 LINE IN (G)
AU-82, 214-3
M
AUDIO MUTE IN
AU-82, 210-5
J
CH-2 LINE IN (X)
AU-82, 210-4
I
CH-2 LINE IN (G)
R10 6.8k
R11 560
C8 22 25V
R9 1k
C7 22p :CA
C5 220 16V
C4 100 16V
C3 0.01
C9 220 16V
IC1 LA4500
C17 1000 16V
R14 47k
C10 100 6.3V
R13 6.8k
R15 560
C16 0.01
R16 1k
C11 22 25V
C12 22p :CA
C15 100 16V
C13 220 16V
Q1 2SC2878
C6 0.15
R17 4.7
T3
R19 1k
Q2 2SC2878
C14 0.15
R18 4.7
T4
R20 1k
CH-1 LINE OUT (Y) 9
CH-1 LINE OUT (X) 2
CH-1 LINE OUT (G) 0
CN1017 CH-1 LINE OUT
REG 12V IN K
AU-82, 214-1
REG GND IN L
AU-82, 214-2
CH-2 LINE OUT (Y) 9
CH-2 LINE OUT (X) 2
CH-2 LINE OUT (G) 0
CN1018 CH-2 LINE OUT
* A1
CP-112A
1-622-224-21
VP-9000

CP-112A: OUTPUT AMPLIFIER

CP-112A (1-622-224-21)

IC1	B-2
Q1	C-2
Q2	C-1
T3	C-3
T4	C-2


1
2
3
A
B
C
CP-112A
1-622-224-21
DIP
C13
C15
C12
R16
C11
R15
CH-2 LINE IN
R18
C14
C16
20
15
11
R14
R13
C17
C10
R11
IC1
5
10
C4
C7
R9
C8
C9
R10
CH-1 LINE IN
C3
R20
SONY
MADE IN JAPAN
JW1
JW2
Q2
CH-2 LINE OUT
C5
C6
R17
Q1
R19
CH-1 LINE OUT
AUDIO MUTE
T4
T3
G4
G3
LOT NO.

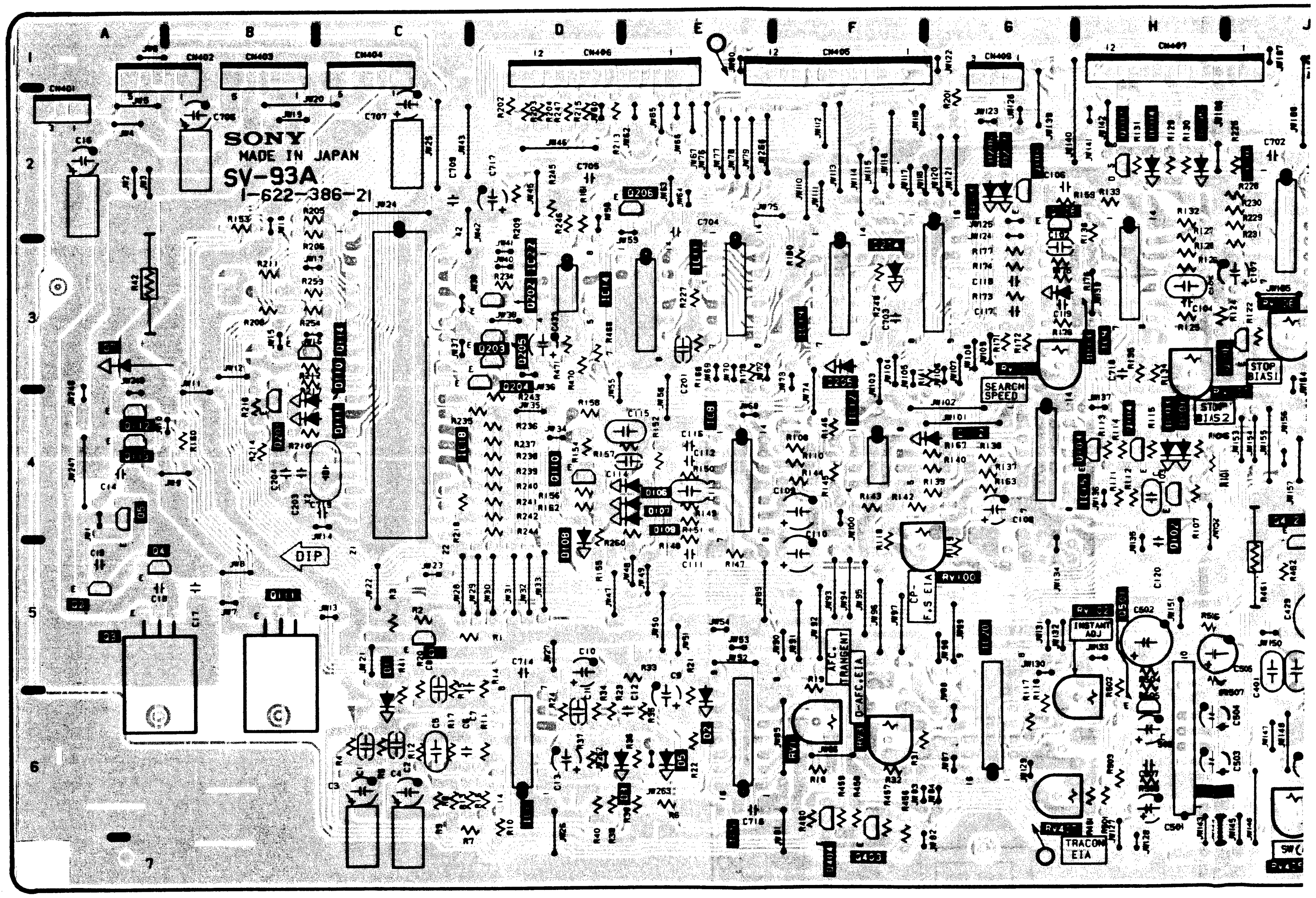
CP-112A
-COMPONENT SIDE-
1-622-224-21
VP-9000

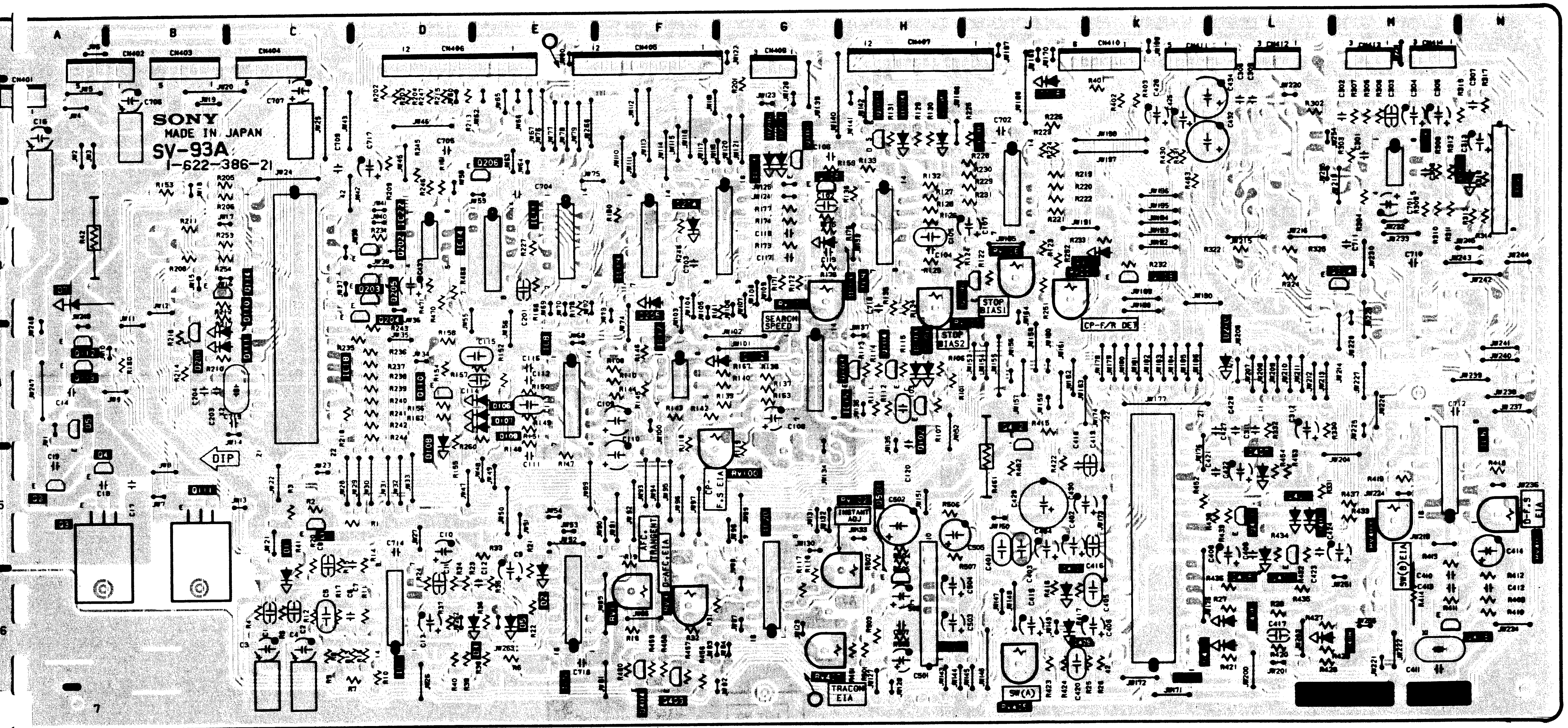
SV-93A: SERVO SYSTEM

UC; S/N 10001 thru 10850
J; S/N 10001 thru 10150

SV-93A (1-622-386-21)

CN401	A-2	IC10	J-2	RV401	N
CN402	A-1	IC11	E-3	RV403	M
CN403	B-1	IC12	F-4	RV405	J-
CN404	C-1	IC13	G-3	RV407	G
CN405	F-1	IC14	E-3		
CN406	D-1	IC15	G-4	X1	M
CN407	H-1	IC17	K-5	X2	C-
CN409	G-1	IC18	C-3		
CN410	K-1	IC19	F-3		
CN411	K-1	IC20	G-6		
CN412	L-1	IC21	H-6		
CN413	M-1	IC22	D-3		
CN414	M-1				
		Q1	C-5		
D1	C-6	Q2	A-5		
D2	E-6	Q3	A-5		
D3	E-6	Q4	A-5		
D5	E-6	Q5	A-4		
D7	A-3	Q101	G-2		
D101	H-4	Q102	H-4		
D103	H-4	Q103	H-4		
D104	H-2	Q104	H-4		
D105	H-2	Q106	J-3		
D106	E-4	Q107	H-2		
D107	E-4	Q108	G-2		
D108	D-5	Q109	K-3		
D109	E-4	Q110	D-4		
D110	B-4	Q111	B-5		
D111	B-4	Q112	A-4		
D112	G-4	Q113	A-4		
D113	G-3	Q114	B-3		
D204	F-3	Q201	B-4		
D205	F-3	Q202	D-3		
D206	G-2	Q203	D-3		
D207	G-2	Q204	D-3		
D208	J-2	Q205	D-3		
D210	L-4	Q206	E-2		
D211	K-3	Q304	M-3		
D303	N-2	Q401	L-5		
D402	L-5	Q403	F-6		
D404	L-5	Q404	F-6		
D405	L-5	Q408	M-6		
D406	L-6	Q411	L-5		
D407	L-5	Q412	J-5		
D408	L-6	Q501	H-6		
D409	J-6				
D410	J-6	RV1	F-6		
D411	L-6	RV3	F-6		
		RV100	F-5		
IC1	D-6	RV101	G-3		
IC2	N-2	RV102	H-6		
IC3	M-2	RV106	J-3		
IC5	E-6	RV107	H-3		
IC6	M-5	RV201	J-3		
IC8	E-4				
IC9	H-3				


A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
CN401
CN402
CN403
CN404
CN406
CN405
CN409
CN407
SONY
MADE IN JAPAN
SV-93A
1-622-386-21
DIP
SEARCH SPEED
STOP BIAS1
STOP BIAS2
INSTANT ADJ
AFC TANGENT
D.AFC EIA
F.S EIA
TRACON EIA
RV100


A
B
C
D
E
F
G
H
J
K
L
M
N
CN401
CN402
CN403
CN404
CN406
CN405
CN408
CN407
CN410
CN411
CN412
CN413
CN414
SONY
MADE IN JAPAN
SV-93A
1-622-386-21
DIP
SEARCH SPEED
STOP BIAS1
STOP BIAS2
CP-F/R DET
INSTANT ADJ
TRACON EIA
SW(A)
AFC TRANSIENT
CP-F.S EIA
D-F.S EIA
SW(B)EIA
7

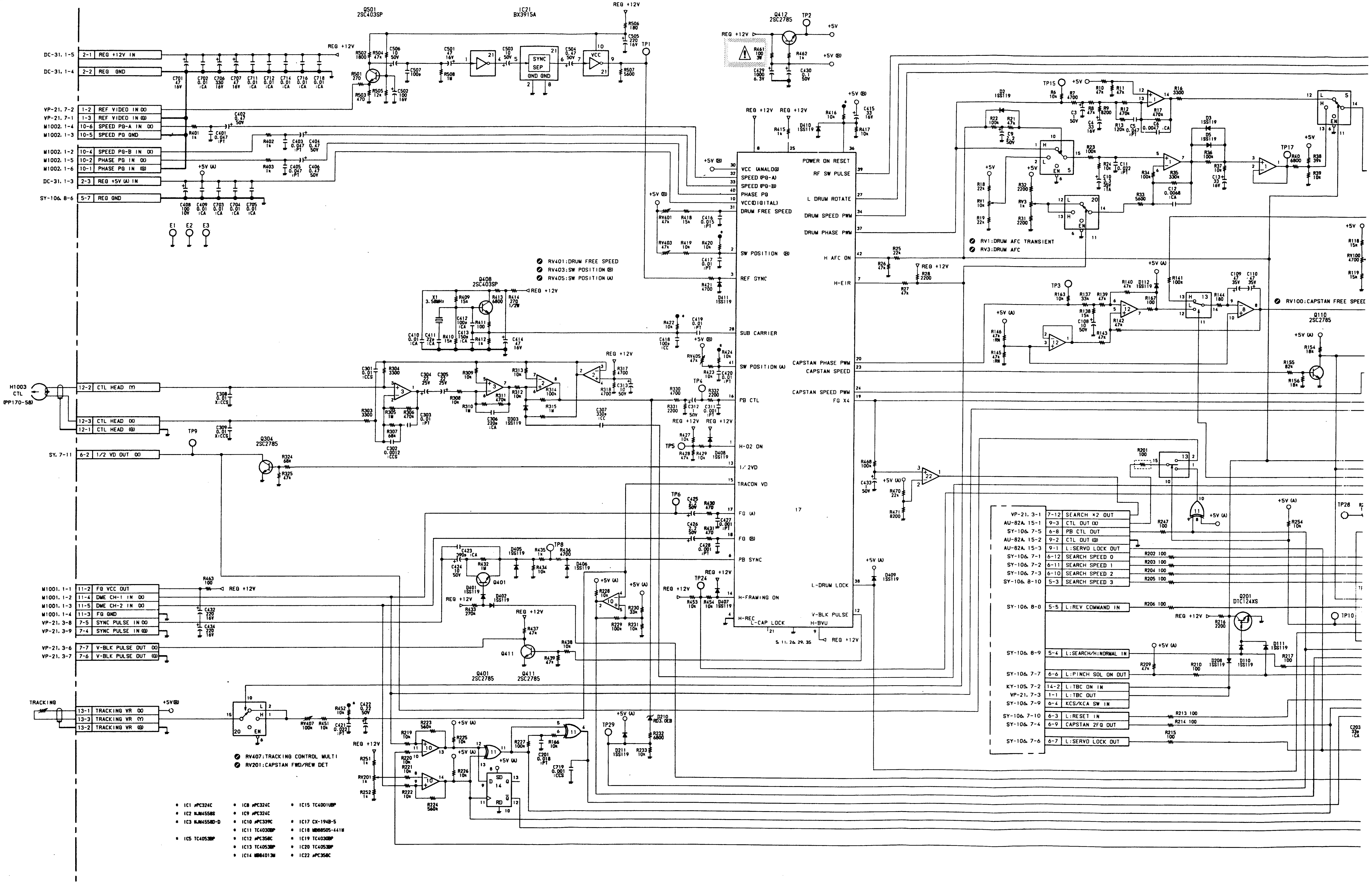
SV-93A

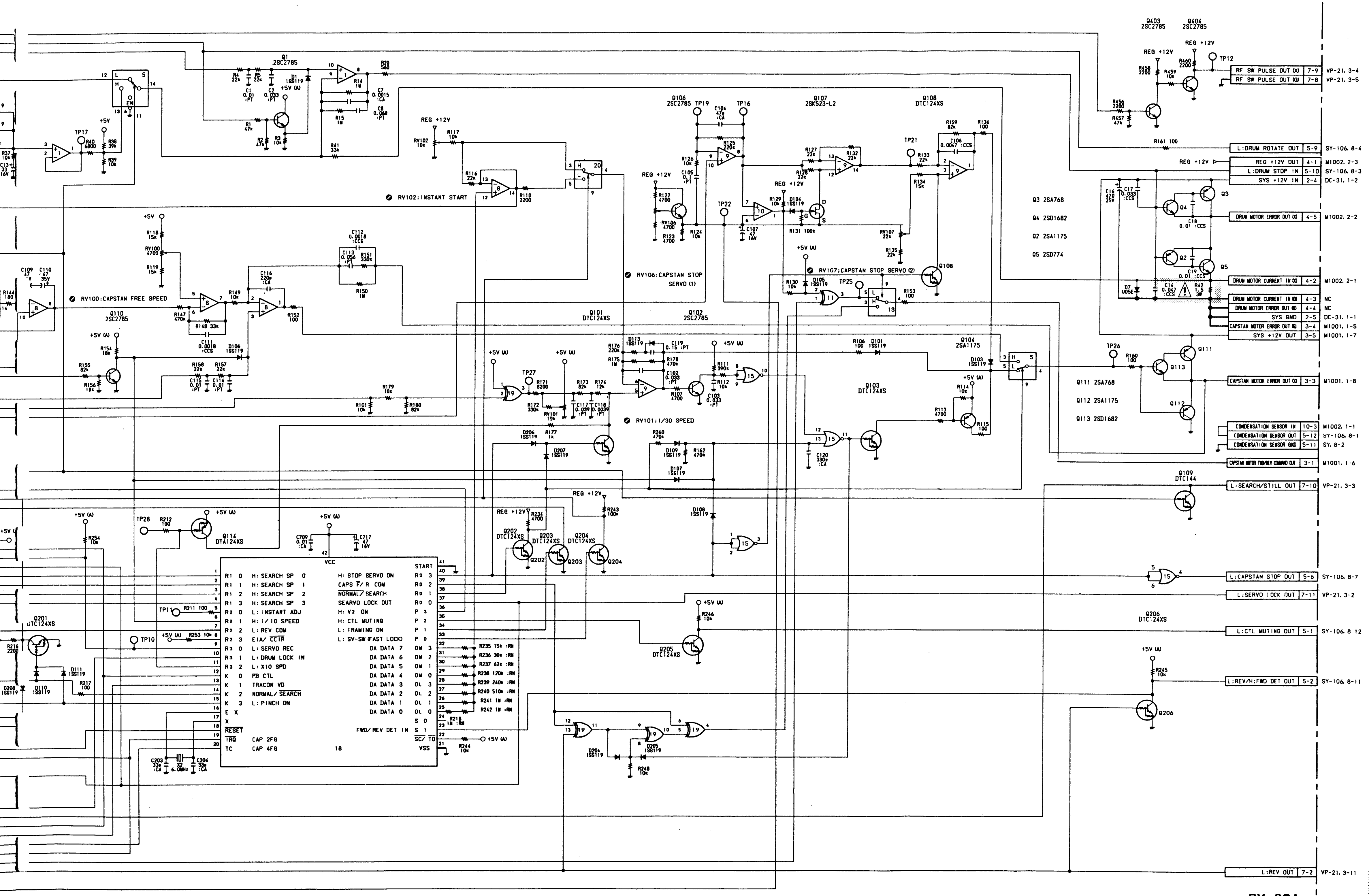
-COMPONENT SIDE-

1-622-386-21
VP-9000

SV-93A: SERVO SYSTEM

UC; S/N 10001 thru 10850
J; S/N 10001 thru 10150


DC-31, 1-5 | 2-1 | REG +12V IN
DC-31, 1-4 | 2-2 | REG GND
VP-21, 7-2 | 1-2 | REF VIDEO IN (X)
VP-21, 7-1 | 1-3 | REF VIDEO IN (G)
M1002, 1-4 | 10-6 | SPEED PG-A IN (X)
M1002, 1-3 | 10-5 | SPEED PG GND
M1002, 1-2 | 10-4 | SPEED PG-B IN (X)
M1002, 1-5 | 10-2 | PHASE PG IN (X)
M1002, 1-6 | 10-1 | PHASE PG IN (G)
DC-31, 1-3 | 2-3 | REG +5V (A) IN
SY-106, 8-6 | 5-7 | REG GND
E1
E2
E3
H1003 CTL (PP170-58)
12-2 | CTL HEAD (Y)
12-3 | CTL HEAD (X)
12-1 | CTL HEAD (G)
TP9
SY, 7-11 | 6-2 | 1/2 VD OUT (X)
M1001, 1-1 | 11-2 | FG VCC OUT
M1001, 1-2 | 11-4 | DME CH-1 IN (X)
M1001, 1-3 | 11-5 | DME CH-2 IN (X)
M1001, 1-4 | 11-3 | FG GND
VP-21, 3-8 | 7-5 | SYNC PULSE IN (X)
VP-21, 3-9 | 7-4 | SYNC PULSE IN (G)
VP-21, 3-6 | 7-7 | V-BLK PULSE OUT (X)
VP-21, 3-7 | 7-6 | V-BLK PULSE OUT (G)
TRACKING
13-1 | TRACKING VR (X)
13-3 | TRACKING VR (Y)
13-2 | TRACKING VR (G)
+5V (B)
Q501 2SC403SP
IC21 BX3915A
SYNC SEP
VCC
GND GND
TP1
REG +12V
Q412 2SC2785
TP2
+5V
⊘ RV401: DRUM FREE SPEED
⊘ RV403: SW POSITION (B)
⊘ RV405: SW POSITION (A)
Q408 2SC403SP
X1 3.58MHz
Q304 2SC2785
Q401 2SC2785
Q411 2SC2785
TP8
TP24
TP4
TP5
TP6
TP29
D210 RD3.0EB
POWER ON RESET
VCC (ANALOG)
SPEED (PG-A)
SPEED (PG-B)
PHASE PG
VCC (DIGITAL)
DRUM FREE SPEED
RF SW PULSE
L DRUM ROTATE
DRUM SPEED PWM
DRUM PHASE PWM
SW POSITION (B)
H AFC ON
REF SYNC
H-EIR
SUB CARRIER
SW POSITION (A)
CAPSTAN PHASE PWM
CAPSTAN SPEED
CAPSTAN SPEED PWM
PB CTL
FG X4
H-02 ON
1/2VD
TRACON VD
FG (A)
FG (B)
PB SYNC
L-DRUM LOCK
H-FRAMING ON
V-BLK PULSE
H-REC
L-CAP LOCK
H-BVU
5, 11, 26, 29, 35
⊘ RV1: DRUM AFC TRANSIENT
⊘ RV3: DRUM AFC
TP15
TP17
TP3
TP10
TP28
⊘ RV100: CAPSTAN FREE SPEE
Q110 2SC2785
Q201 DTC124XS
VP-21, 3-1 | 7-12 | SEARCH ×2 OUT
AU-82A, 15-1 | 9-3 | CTL OUT (X)
SY-106, 7-5 | 6-8 | PB CTL OUT
AU-82A, 15-2 | 9-2 | CTL OUT (G)
AU-82A, 15-3 | 9-1 | L:SERVO LOCK OUT
SY-106, 7-1 | 6-12 | SEARCH SPEED 0
SY-106, 7-2 | 6-11 | SEARCH SPEED 1
SY-106, 7-3 | 6-10 | SEARCH SPEED 2
SY-106, 8-10 | 5-3 | SEARCH SPEED 3
SY-106, 8-8 | 5-5 | L:REV COMMAND IN
SY-106, 8-9 | 5-4 | L:SEARCH/H:NORMAL IN
SY-106, 7-7 | 6-6 | L:PINCH SOL ON OUT
KY-105, 7-2 | 14-2 | L:TBC ON IN
VP-21, 7-3 | 1-1 | L:TBC OUT
SY-106, 7-9 | 6-4 | KCS/KCA SW IN
SY-106, 7-10 | 6-3 | L:RESET IN
SY-106, 7-4 | 6-9 | CAPSTAN 2FG OUT
SY-106, 7-6 | 6-7 | L:SERVO LOCK OUT
⊘ RV407: TRACKING CONTROL MULTI
⊘ RV201: CAPSTAN FWD/REW DET
* IC1 μPC324C
* IC2 NJM4558S
* IC3 NJM4558D-D
* IC5 TC4053BP
* IC8 μPC324C
* IC9 μPC324C
* IC10 μPC339C
* IC11 TC4030BP
* IC12 μPC358C
* IC13 TC4053BP
* IC14 MB84013M
* IC15 TC4001UBP
* IC17 CX-194B-5
* IC18 MB88505-441M
* IC19 TC4030BP
* IC20 TC4053BP
* IC22 μPC358C


Q1 2SC2785
Q106 2SC2785
Q107 2SK523-L2
Q108 DTC124XS
Q403 2SC2785
Q404 2SC2785
REG +12V
TP12
RF SW PULSE OUT (X) 7-9 VP-21, 3-4
RF SW PULSE OUT (G) 7-8 VP-21, 3-5
L:DRUM ROTATE OUT 5-9 SY-106, 8-4
REG +12V OUT 4-1 M1002, 2-3
L:DRUM STOP IN 5-10 SY-106, 8-3
SYS +12V IN 2-4 DC-31, 1-2
DRUM MOTOR ERROR OUT (X) 4-5 M1002, 2-2
DRUM MOTOR CURRENT IN (X) 4-2 M1002, 2-1
DRUM MOTOR CURRENT IN (G) 4-3 NC
DRUM MOTOR ERROR OUT (G) 4-4 NC
SYS GND 2-5 DC-31, 1-1
CAPSTAN MOTOR ERROR OUT (G) 3-4 M1001, 1-5
SYS +12V OUT 3-5 M1001, 1-7
CAPSTAN MOTOR ERROR OUT (X) 3-3 M1001, 1-8
CONDENSATION SENSOR IN 10-3 M1002, 1-1
CONDENSATION SENSOR OUT 5-12 SY-106, 8-1
CONDENSATION SENSOR GND 5-11 SY, 8-2
CAPSTAN MOTOR FWD/REV COMMAND OUT 3-1 M1001, 1-6
L:SEARCH/STILL OUT 7-10 VP-21, 3-3
L:CAPSTAN STOP OUT 5-6 SY-106, 8-7
L:SERVO LOCK OUT 7-11 VP-21, 3-2
L:CTL MUTING OUT 5-1 SY-106, 8 12
L:REV/H:FWD DET OUT 5-2 SY-106, 8-11
L:REV OUT 7-2 VP-21, 3-11
Q3 2SA768
Q4 2SD1682
Q2 2SA1175
Q5 2SD774
Q111 2SA768
Q112 2SA1175
Q113 2SD1682
R42 1.5 3W
RV102:INSTANT START
RV100:CAPSTAN FREE SPEED
RV106:CAPSTAN STOP SERVO (1)
RV107:CAPSTAN STOP SERVO (2)
RV101:1/30 SPEED
Q101 DTC124XS
Q102 2SC2785
Q103 DTC124XS
Q104 2SA1175
Q109 DTC144
Q110 2SC2785
Q114 DTA124XS
Q201 DTC124XS
Q202 DTC124XS
Q203 DTC124XS
Q204 DTC124XS
Q205 DTC124XS
Q206 DTC124XS
VCC
START
R1 0 H: SEARCH SP 0
R1 1 H: SEARCH SP 1
R1 2 H: SEARCH SP 2
R1 3 H: SEARCH SP 3
R2 0 L: INSTANT ADJ
R2 1 H: 1/10 SPEED
R2 2 L: REV COM
R2 3 EIA/ CCIR
R3 0 L: SERVO REC
R3 1 L: DRUM LOCK IN
R3 2 L: X10 SPD
K 0 PB CTL
K 1 TRACON VD
K 2 NORMAL/ SEARCH
K 3 L: PINCH ON
E X
X
RESET
IRQ CAP 2FG
TC CAP 4FG
H: STOP SERVO ON R0 3
CAPS F/ R COM R0 2
NORMAL/ SEARCH R0 1
SEARVO LOCK OUT R0 0
H: V2 ON P 3
H: CTL MUTING P 2
L: FRAMING ON P 1
L: SV-SW (FAST LOCK) P 0
DA DATA 7 OM 3
DA DATA 6 OM 2
DA DATA 5 OM 1
DA DATA 4 OM 0
DA DATA 3 OL 3
DA DATA 2 OL 2
DA DATA 1 OL 1
DA DATA 0 OL 0
S 0
FWD/ REV DET IN S 1
SC/ TO
VSS
X2 6.0MHz
+5V (A)

SV-93A
1-622-386-21
VP-9000

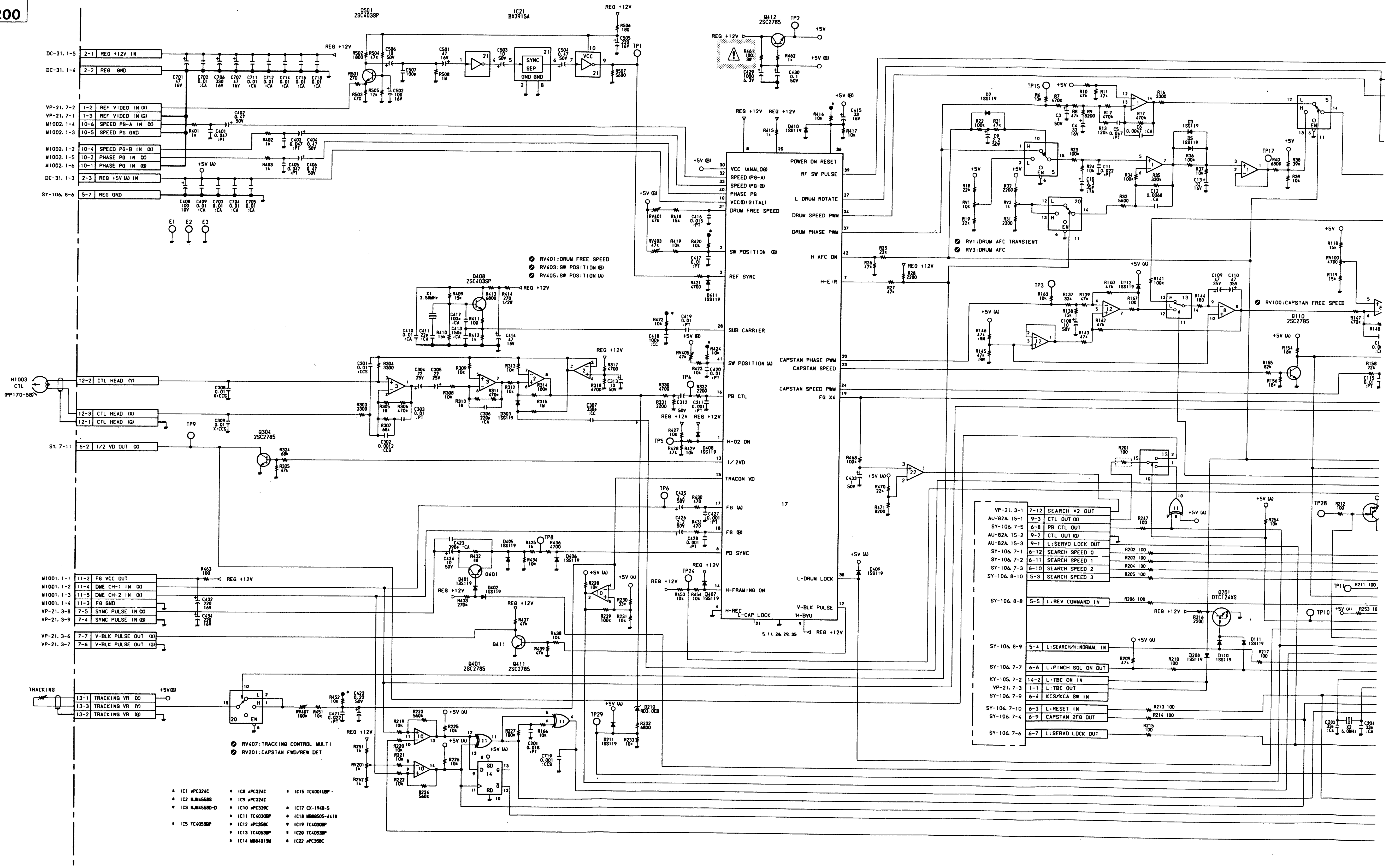
注意１：⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE;

The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.

SV-93A:SERVO SYSTEM

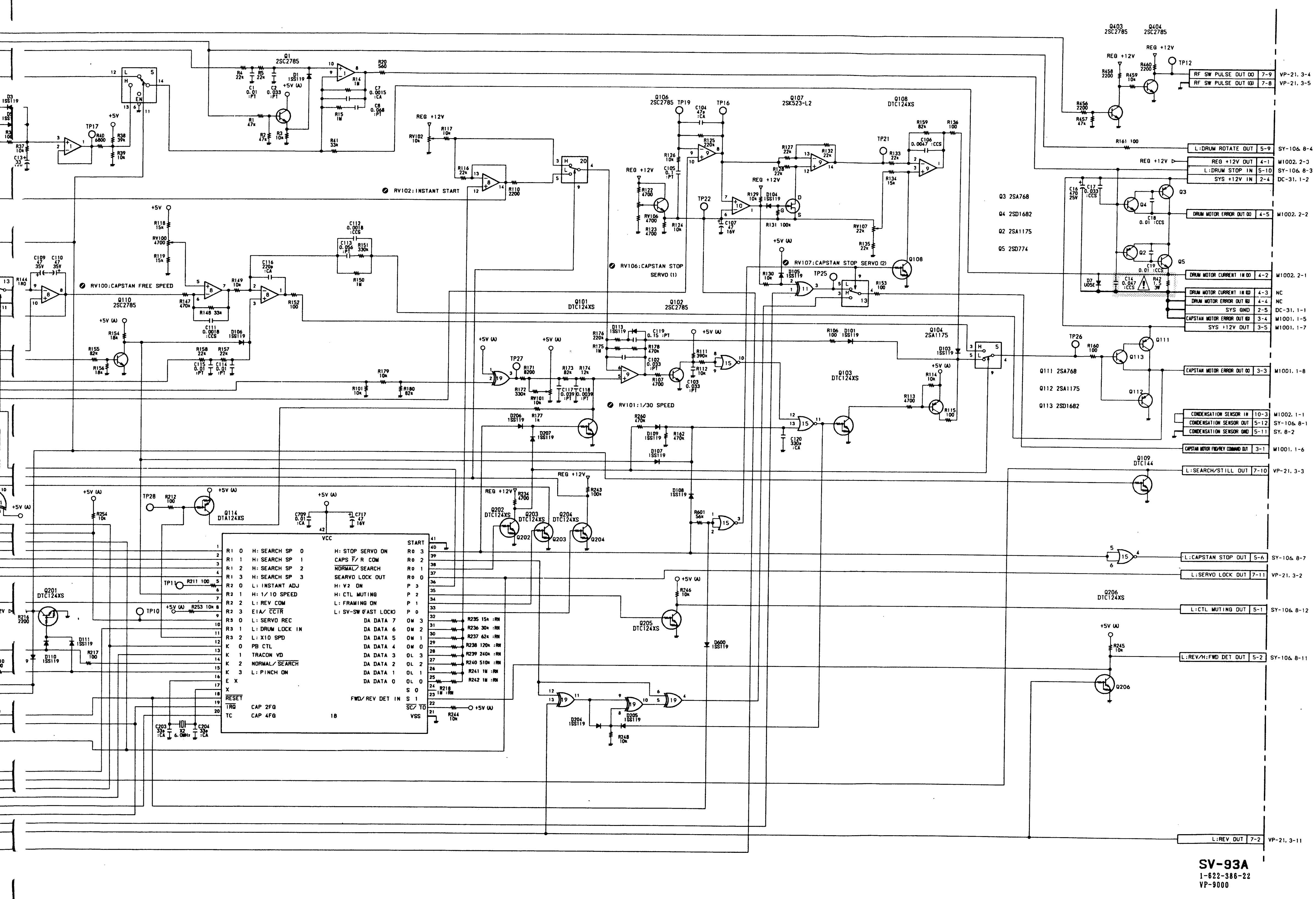
UC;S/N 10851 thru 11700
J; S/N 10151 thru 10200


DC-31, 1-5 | 2-1 | REG +12V IN
DC-31, 1-4 | 2-2 | REG GND
VP-21, 7-2 | 1-2 | REF VIDEO IN (X)
VP-21, 7-1 | 1-3 | REF VIDEO IN (G)
M1002, 1-4 | 10-6 | SPEED PG-A IN (X)
M1002, 1-3 | 10-5 | SPEED PG GND
M1002, 1-2 | 10-4 | SPEED PG-B IN (X)
M1002, 1-5 | 10-2 | PHASE PG IN (X)
M1002, 1-6 | 10-1 | PHASE PG IN (G)
DC-31, 1-3 | 2-3 | REG +5V (A) IN
SY-106, 8-6 | 5-7 | REG GND
E1
E2
E3
H1003 CTL (PP170-58)
12-2 CTL HEAD (Y)
12-3 CTL HEAD (X)
12-1 CTL HEAD (G)
SY, 7-11 | 6-2 | 1/2 VD OUT (X)
M1001, 1-1 | 11-2 | FG VCC OUT
M1001, 1-2 | 11-4 | DME CH-1 IN (X)
M1001, 1-3 | 11-5 | DME CH-2 IN (X)
M1001, 1-4 | 11-3 | FG GND
VP-21, 3-8 | 7-5 | SYNC PULSE IN (X)
VP-21, 3-9 | 7-4 | SYNC PULSE IN (G)
VP-21, 3-6 | 7-7 | V-BLK PULSE OUT (X)
VP-21, 3-7 | 7-6 | V-BLK PULSE OUT (G)
TRACKING
13-1 TRACKING VR (X)
13-3 TRACKING VR (Y)
13-2 TRACKING VR (G)
Q501 2SC403SP
IC21 BX3915A
SYNC SEP
GND GND
VCC
Q412 2SC2785
TP1
TP2
Q408 2SC403SP
X1 3.58MHz
Q304 2SC2785
Q401 2SC2785
Q411 2SC2785
POWER ON RESET
RF SW PULSE
L DRUM ROTATE
DRUM SPEED PWM
DRUM PHASE PWM
H AFC ON
H-EIR
VCC (ANALOG)
SPEED (PG-A)
SPEED (PG-B)
PHASE PG
VCC (DIGITAL)
DRUM FREE SPEED
SW POSITION (B)
REF SYNC
SUB CARRIER
SW POSITION (A)
PB CTL
H-02 ON
1/2VD
TRACON VD
FG (A)
FG (B)
PD SYNC
H-FRAMING ON
H-REC
L-CAP LOCK
V-BLK PULSE
H-BYU
CAPSTAN PHASE PWM
CAPSTAN SPEED
CAPSTAN SPEED PWM
FG X4
L-DRUM LOCK
17
RV1:DRUM AFC TRANSIENT
RV3:DRUM AFC
RV100:CAPSTAN FREE SPEED
Q110 2SC2785
VP-21, 3-1 | 7-12 | SEARCH ×2 OUT
AU-82A, 15-1 | 9-3 | CTL OUT (X)
SY-106, 7-5 | 6-8 | PB CTL OUT
AU-82A, 15-2 | 9-2 | CTL OUT (G)
AU-82A, 15-3 | 9-1 | L:SERVO LOCK OUT
SY-106, 7-1 | 6-12 | SEARCH SPEED 0
SY-106, 7-2 | 6-11 | SEARCH SPEED 1
SY-106, 7-3 | 6-10 | SEARCH SPEED 2
SY-106, 8-10 | 5-3 | SEARCH SPEED 3
SY-106, 8-8 | 5-5 | L:REV COMMAND IN
SY-106, 8-9 | 5-4 | L:SEARCH/H:NORMAL IN
SY-106, 7-7 | 6-6 | L:PINCH SOL ON OUT
KY-105, 7-2 | 14-2 | L:TBC ON IN
VP-21, 7-3 | 1-1 | L:TBC OUT
SY-106, 7-9 | 6-4 | KCS/KCA SW IN
SY-106, 7-10 | 6-3 | L:RESET IN
SY-106, 7-4 | 6-9 | CAPSTAN 2FG OUT
SY-106, 7-6 | 6-7 | L:SERVO LOCK OUT
Q201 DTC124XS
X2 6.0MHz
TP3
TP4
TP5
TP6
TP8
TP9
TP10
TP11
TP15
TP17
TP24
TP28
TP29
REG +12V
+5V
+5V (A)
+5V (B)

⊘ RV401:DRUM FREE SPEED
⊘ RV403:SW POSITION (B)
⊘ RV405:SW POSITION (A)

⊘ RV407:TRACKING CONTROL MULTI
⊘ RV201:CAPSTAN FWD/REW DET

* IC1 μPC324C	* IC8 μPC324C	* IC15 TC4001UBP
* IC2 NJM4558S	* IC9 μPC324C	
* IC3 NJM4558D-D	* IC10 μPC339C	* IC17 CX-194B-5
	* IC11 TC4030BP	* IC18 MB88505-441M
* IC5 TC4053BP	* IC12 μPC358C	* IC19 TC4030BP
	* IC13 TC4053BP	* IC20 TC4053BP
	* IC14 MB84013M	* IC22 μPC358C


Q1 2SC2785
Q403 2SC2785
Q404 2SC2785
REG +12V
TP12
RF SW PULSE OUT (A) 7-9 VP-21, 3-4
RF SW PULSE OUT (B) 7-8 VP-21, 3-5
L:DRUM ROTATE OUT 5-9 SY-106 8-4
REG +12V OUT 4-1 M1002, 2-3
L:DRUM STOP IN 5-10 SY-106 8-3
SYS +12V IN 2-4 DC-31, 1-2
DRUM MOTOR ERROR OUT (A) 4-5 M1002, 2-2
DRUM MOTOR CURRENT IN (A) 4-2 M1002, 2-1
DRUM MOTOR CURRENT IN (B) 4-3 NC
DRUM MOTOR ERROR OUT (B) 4-4 NC
SYS GND 2-5 DC-31, 1-1
CAPSTAN MOTOR ERROR OUT (B) 3-4 M1001, 1-5
SYS +12V OUT 3-5 M1001, 1-7
CAPSTAN MOTOR ERROR OUT (A) 3-3 M1001, 1-8
CONDENSATION SENSOR IN 10-3 M1002, 1-1
CONDENSATION SENSOR OUT 5-12 SY-106 8-1
CONDENSATION SENSOR GND 5-11 SY, 8-2
CAPSTAN MOTOR FWD/REV COMMAND OUT 3-1 M1001, 1-6
L:SEARCH/STILL OUT 7-10 VP-21, 3-3
L:CAPSTAN STOP OUT 5-6 SY-106 8-7
L:SERVO LOCK OUT 7-11 VP-21, 3-2
L:CTL MUTING OUT 5-1 SY-106 8-12
L:REV/H:FWD DET OUT 5-2 SY-106 8-11
L:REV OUT 7-2 VP-21, 3-11
Q3 2SA768
Q4 2SD1682
Q2 2SA1175
Q5 2SD774
Q111 2SA768
Q112 2SA1175
Q113 2SD1682
RV102:INSTANT START
RV100:CAPSTAN FREE SPEED
RV106:CAPSTAN STOP SERVO (1)
RV107:CAPSTAN STOP SERVO (2)
RV101:1/30 SPEED
Q106 2SC2785
Q107 2SK523-L2
Q108 DTC124XS
Q110 2SC2785
Q101 DTC124XS
Q102 2SC2785
Q103 DTC124XS
Q104 2SA1175
Q109 DTC144
Q114 DTA124XS
Q201 DTC124XS
Q202 DTC124XS
Q203 DTC124XS
Q204 DTC124XS
Q205 DTC124XS
Q206 DTC124XS
VCC
R1 0 H: SEARCH SP 0
R1 1 H: SEARCH SP 1
R1 2 H: SEARCH SP 2
R1 3 H: SEARCH SP 3
R2 0 L: INSTANT ADJ
R2 1 H: 1/10 SPEED
R2 2 L: REV COM
R2 3 EIA/CCIR
R3 0 L: SERVO REC
R3 1 L: DRUM LOCK IN
R3 2 L: X10 SPD
K 0 PB CTL
K 1 TRACON VD
K 2 NORMAL/SEARCH
K 3 L: PINCH ON
EX
X
RESET
IRQ CAP 2FG
TC CAP 4FG
START
H: STOP SERVO ON
CAPS F/R COM
NORMAL/SEARCH
SEARVO LOCK OUT
H: V2 ON
H: CTL MUTING
L: FRAMING ON
L: SV-SW FAST LOCK
DA DATA 7
DA DATA 6
DA DATA 5
DA DATA 4
DA DATA 3
DA DATA 2
DA DATA 1
DA DATA 0
FWD/REV DET IN
SC/TO
VSS
SV-93A
1-622-386-22
VP-9000

注意１：⚠印及び▒▒で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE;

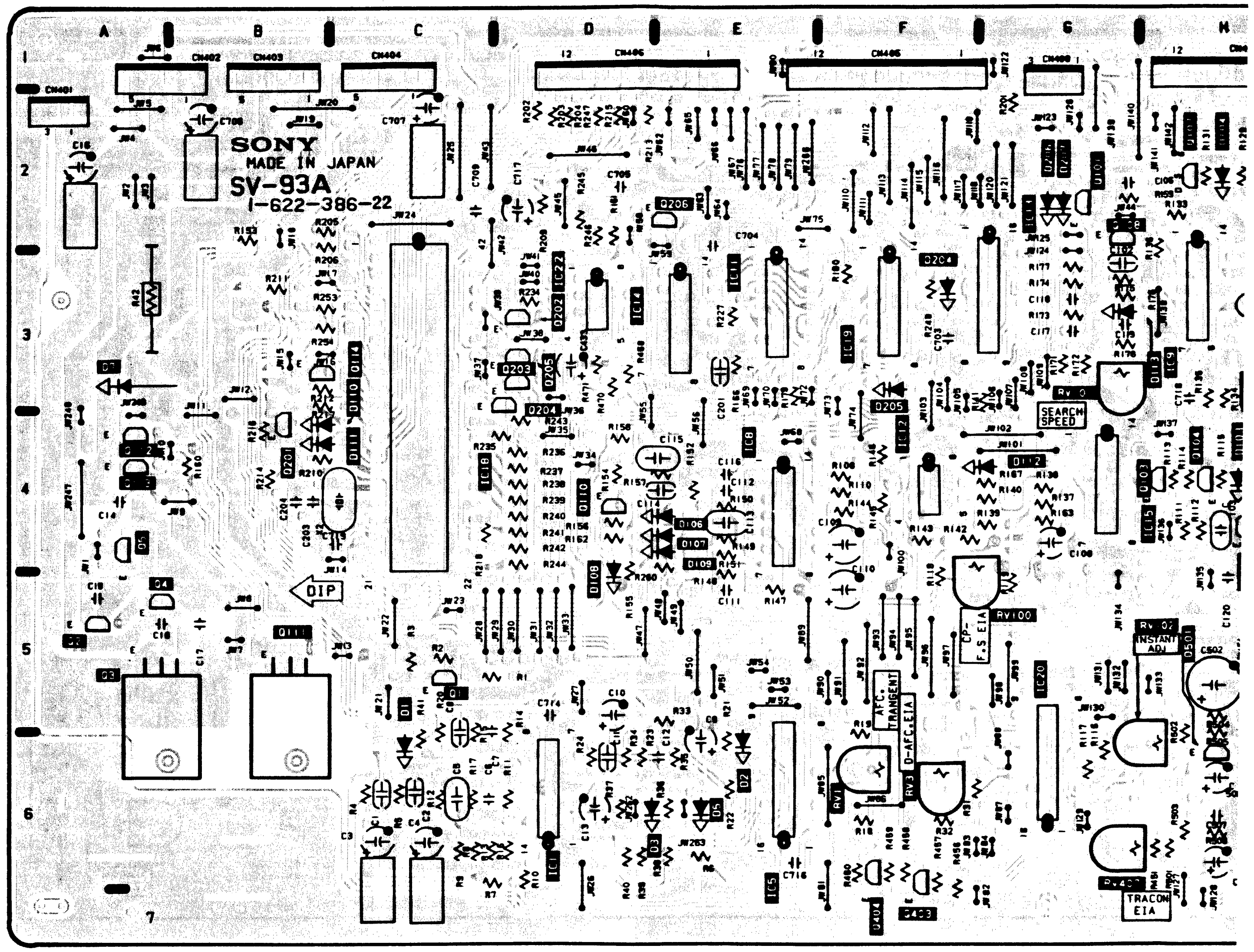
The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.

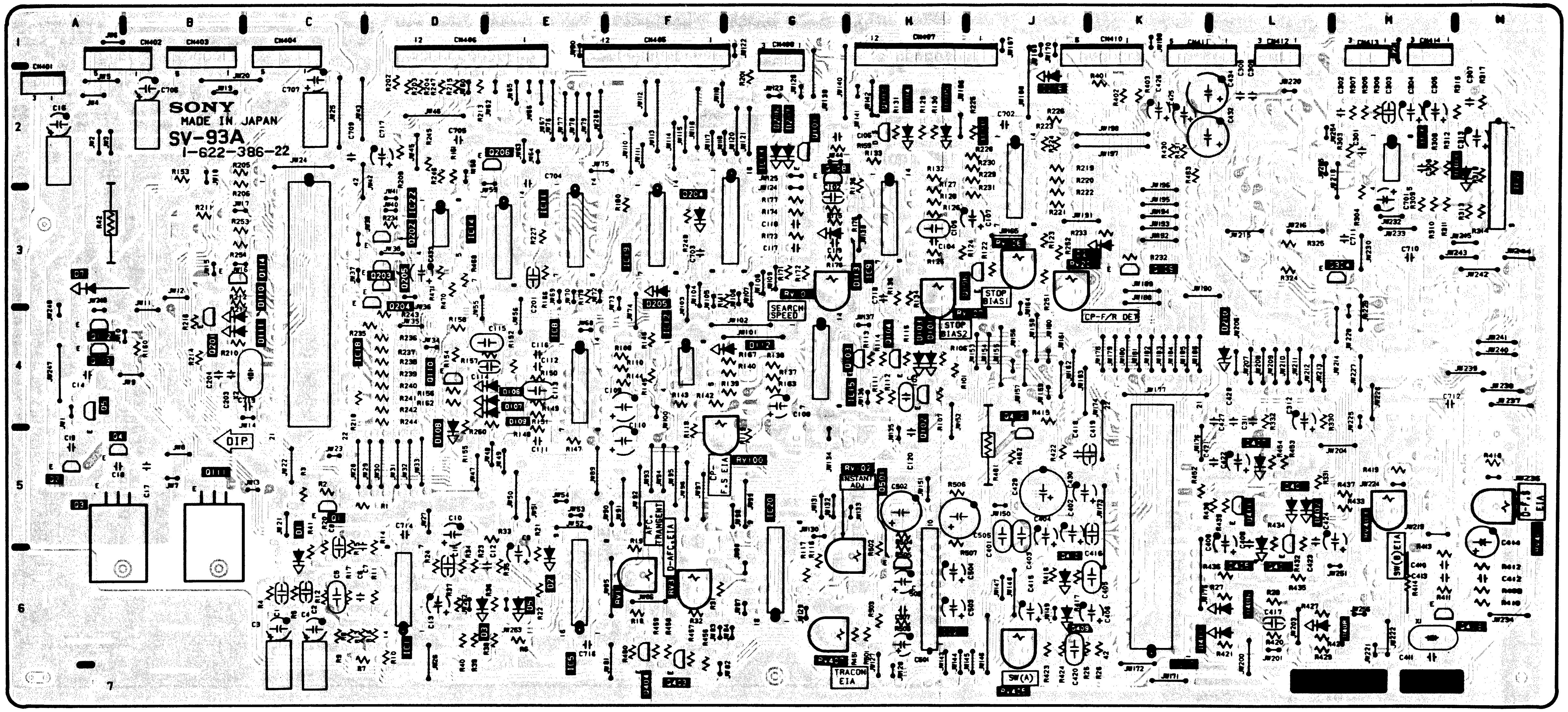
SV-93A:SERVO SYSTEM

UC; S/N 10851 thru 11700
J; S/N 10151 thru 10200

SV-93A (1-622-386-22)

CN401	A-2
CN402	B-1
CN403	B-1
CN404	C-1
CN405	F-1
CN406	D-1
CN407	H-1
CN409	G-1
CN410	K-1
CN411	K-1
CN412	L-1
CN413	M-1
CN414	M-1
D1	C-6
D2	E-6
D3	D-6
D5	E-6
D7	A-3
D101	H-4
D103	H-4
D104	H-2
D105	H-2
D106	E-4
D107	E-4
D108	D-5
D109	E-4
D110	B-4
D111	B-4
D112	G-4
D113	G-3
D204	F-3
D205	F-3
D206	G-2
D207	G-2
D208	J-2
D210	L-4
D211	K-3
D303	N-2
D401	L-5
D402	L-5
D405	L-6
D406	L-6
D407	L-5
D408	L-6
D409	J-6
D410	J-6
D411	L-6
IC1	D-6
IC2	N-2
IC3	M-2
IC5	E-6
IC8	E-4
IC9	H-3
IC10	J-2
IC11	E-3
IC12	F-4
IC13	G-3
IC14	E-3
IC15	G-4
IC17	K-5
IC18	C-3
IC19	F-3
IC20	G-6
IC21	H-6
IC22	D-3
Q1	C-5
Q2	A-5
Q3	A-5
Q4	A-5
Q5	A-4
Q101	G-2
Q102	H-4
Q103	H-4
Q104	H-4
Q106	J-3
Q107	H-2
Q108	G-2
Q109	K-3
Q110	D-4
Q111	B-5
Q112	A-4
Q113	A-4
Q114	B-3
Q201	B-4
Q202	D-3
Q203	D-3
Q204	D-3
Q205	D-3
Q206	E-2
Q304	M-3
Q401	L-6
Q403	F-6
Q404	F-6
Q408	M-6
Q411	L-5
Q412	J-5
Q501	H-6
RV1	F-6
RV3	F-6
RV100	F-5
RV101	G-3
RV102	H-6
RV106	J-3
RV107	H-3
RV201	J-3
RV401	N-5
RV403	M-5
RV405	J-6
RV407	G-6
X1	M-6
X2	C-4


A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
CN401
CN402
CN403
CN404
CN406
CN405
CN409
SONY
MADE IN JAPAN
SV-93A
1-622-386-22
DIP
SEARCH SPEED
CP-F·S EIA
AFC TRANSIENT
D-AFC EIA
RV100
INSTANT ADJ
TRACON EIA


A
B
C
D
E
F
G
H
J
K
L
M
N
1
2
3
4
5
6
7
SONY
MADE IN JAPAN
SV-93A
1-622-386-22
CN401
CN402
CN403
CN404
CN406
CN405
CN408
CN407
CN410
CN411
CN412
CN413
CN414
DIP
SEARCH SPEED
STOP BIAS1
STOP BIAS2
CP-F/R DEV
CP-F.S EIA
AFC TRANSIENT
D-AFC EIA
INSTANT ADJ
TRACON EIA
SW(A)
SW(B) EIA
D-F.S EIA

SV-93A

-COMPONENT SIDE-

1-622-386-22

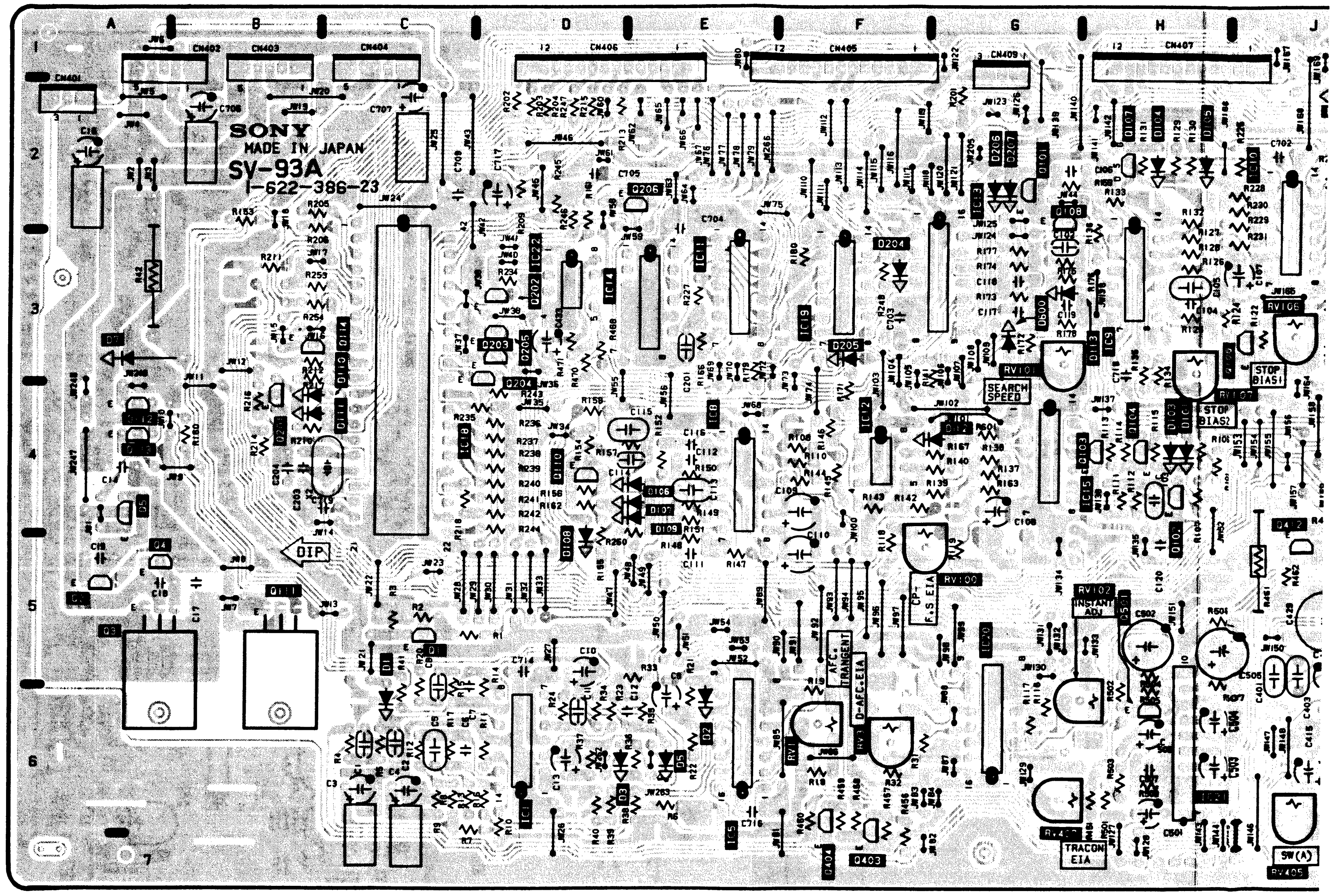
VP-9000

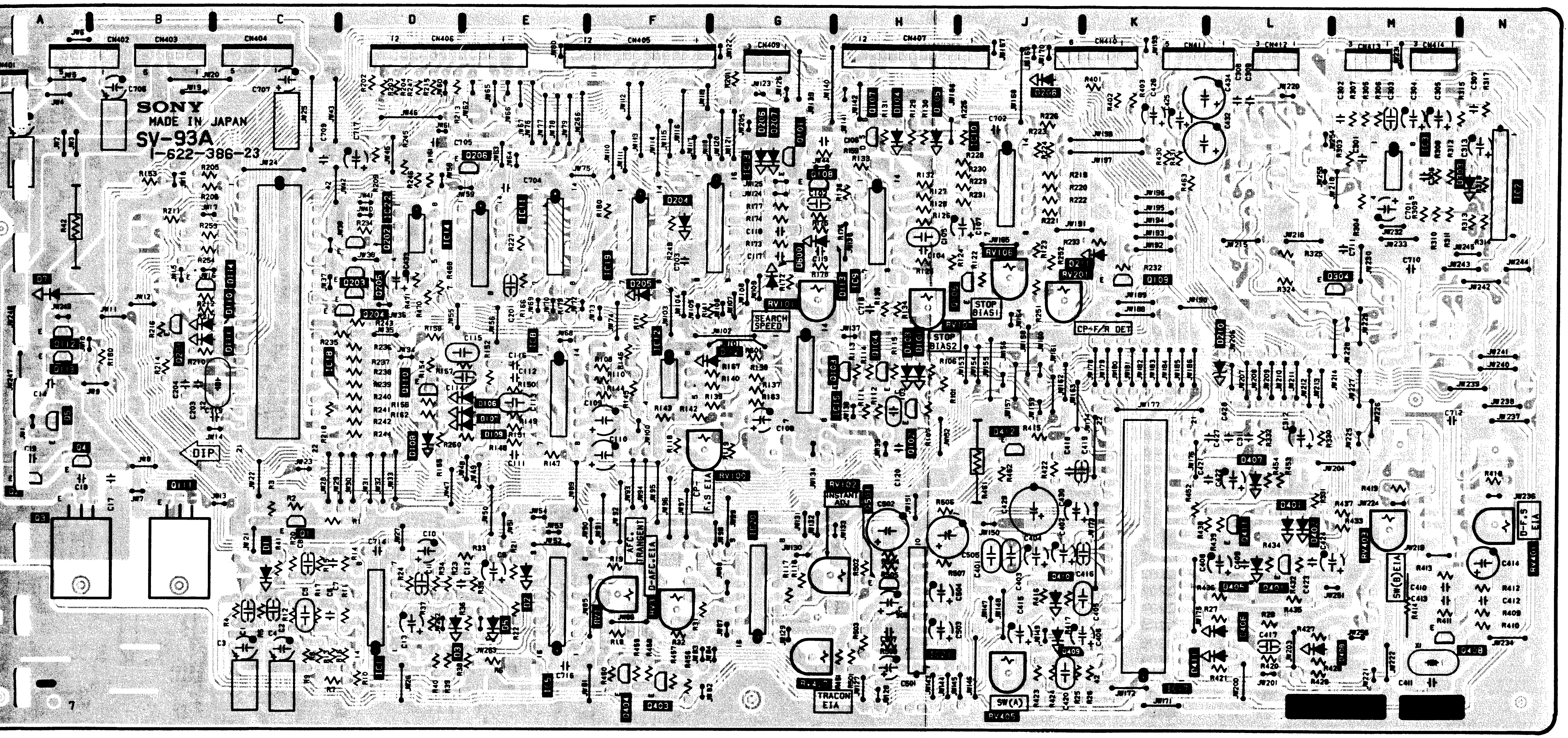
SV-93A: SERVO SYSTEM

UC; S/N 11701 and higher
J; S/N 10201 and higher

SV-93A (1-622-386-23)

CN401	A-2
CN402	A-1
CN403	B-1
CN404	C-1
CN405	F-1
CN406	D-1
CN407	H-1
CN409	G-1
CN410	K-1
CN411	K-1
CN412	L-1
CN413	M-1
CN414	M-1
D1	C-6
D2	E-6
D3	E-6
D5	E-6
D7	A-3
D101	H-4
D103	H-4
D104	H-2
D105	H-2
D106	E-4
D107	E-4
D108	D-5
D109	E-4
D110	B-4
D111	B-4
D112	G-4
D113	G-3
D204	F-3
D205	F-3
D206	G-2
D207	G-2
D208	J-2
D210	L-4
D211	K-3
D303	N-2
D401	L-5
D402	L-5
D405	L-5
D406	L-6
D407	L-5
D408	L-6
D409	J-6
D410	J-6
D411	L-6
D600	G-3
IC1	D-6
IC2	N-2
IC3	M-2
IC5	E-6
IC8	E-4
IC9	H-3
IC10	J-2
IC11	E-3
IC12	F-4
IC13	G-3
IC14	E-3
IC15	G-4
IC17	K-5
IC18	C-3
IC19	F-3
IC20	G-6
IC21	H-6
IC22	D-3
Q1	C-5
Q2	A-5
Q3	A-5
Q4	A-5
Q5	A-4
Q101	G-2
Q102	H-4
Q103	H-4
Q104	H-4
Q106	J-3
Q107	H-2
Q108	G-2
Q109	K-3
Q110	D-4
Q111	B-5
Q112	A-4
Q113	A-4
Q114	B-3
Q201	B-4
Q202	D-3
Q203	D-3
Q204	D-3
Q205	D-3
Q206	E-2
Q304	M-3
Q401	L-5
Q403	F-6
Q404	F-6
Q408	M-6
Q411	L-5
Q412	J-5
Q501	H-6
RV1	F-6
RV3	F-6
RV100	F-5
RV101	G-3
RV102	H-6
RV106	J-3
RV107	H-3
RV201	J-3
RV401	N-5
RV403	M-5
RV405	J-6
RV407	G-6
X1	M-6
X2	C-4




SONY
MADE IN JAPAN
SV-93A
1-622-386-23
A
B
C
D
E
F
G
H
J
K
L
M
N
CN402
CN403
CN404
CN406
CN405
CN409
CN407
CN410
CN411
CN412
CN413
CN414
DIP
SEARCH SPEED
STOP BIAS1
STOP BIAS2
CP-F/R DET
AFC TRANSIENT
INSTANT ADJ
TRACON EIA
SW(A)
SW(B)EIA
D-F.S EIA
CP-F.S EIA

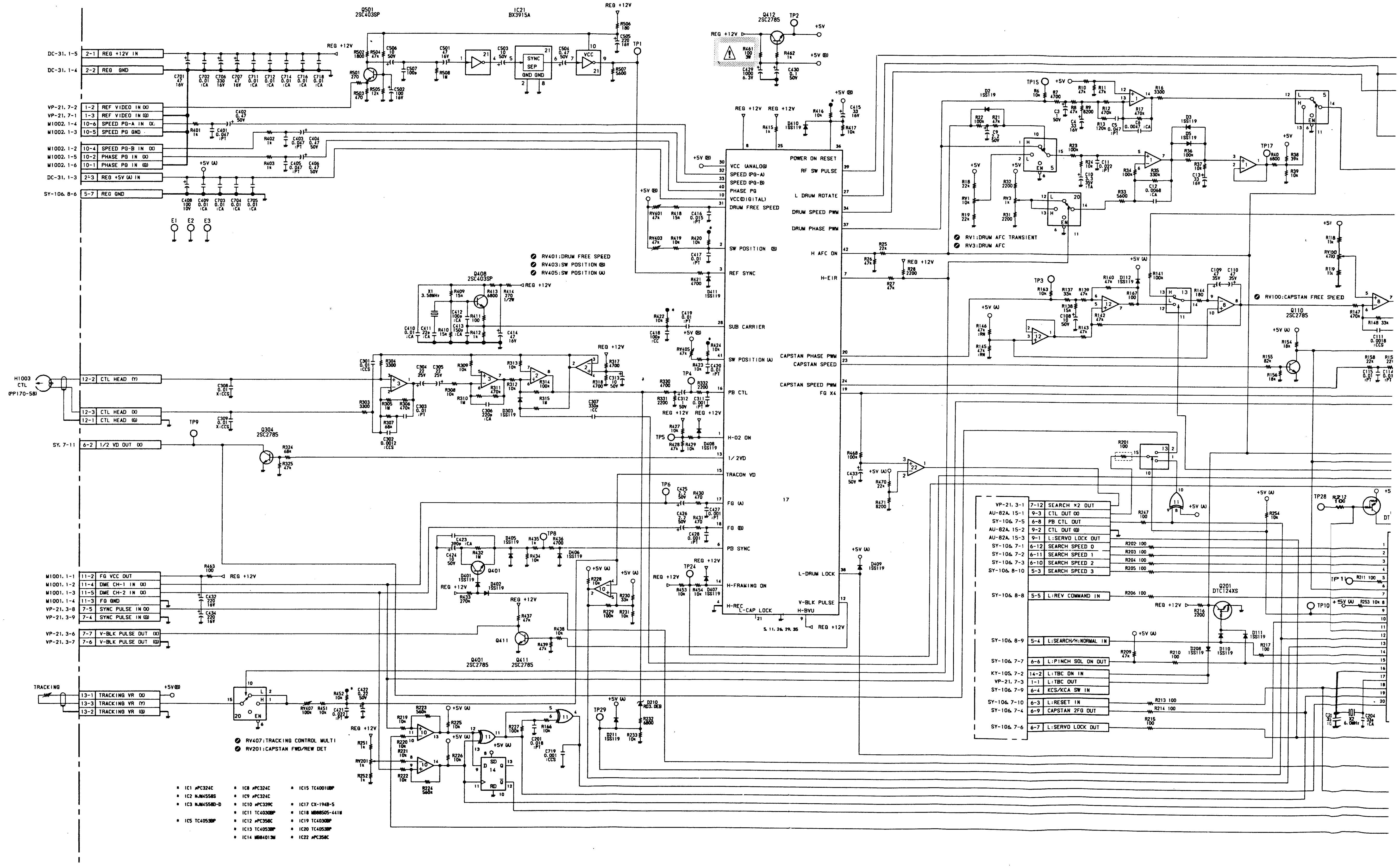
SV-93A

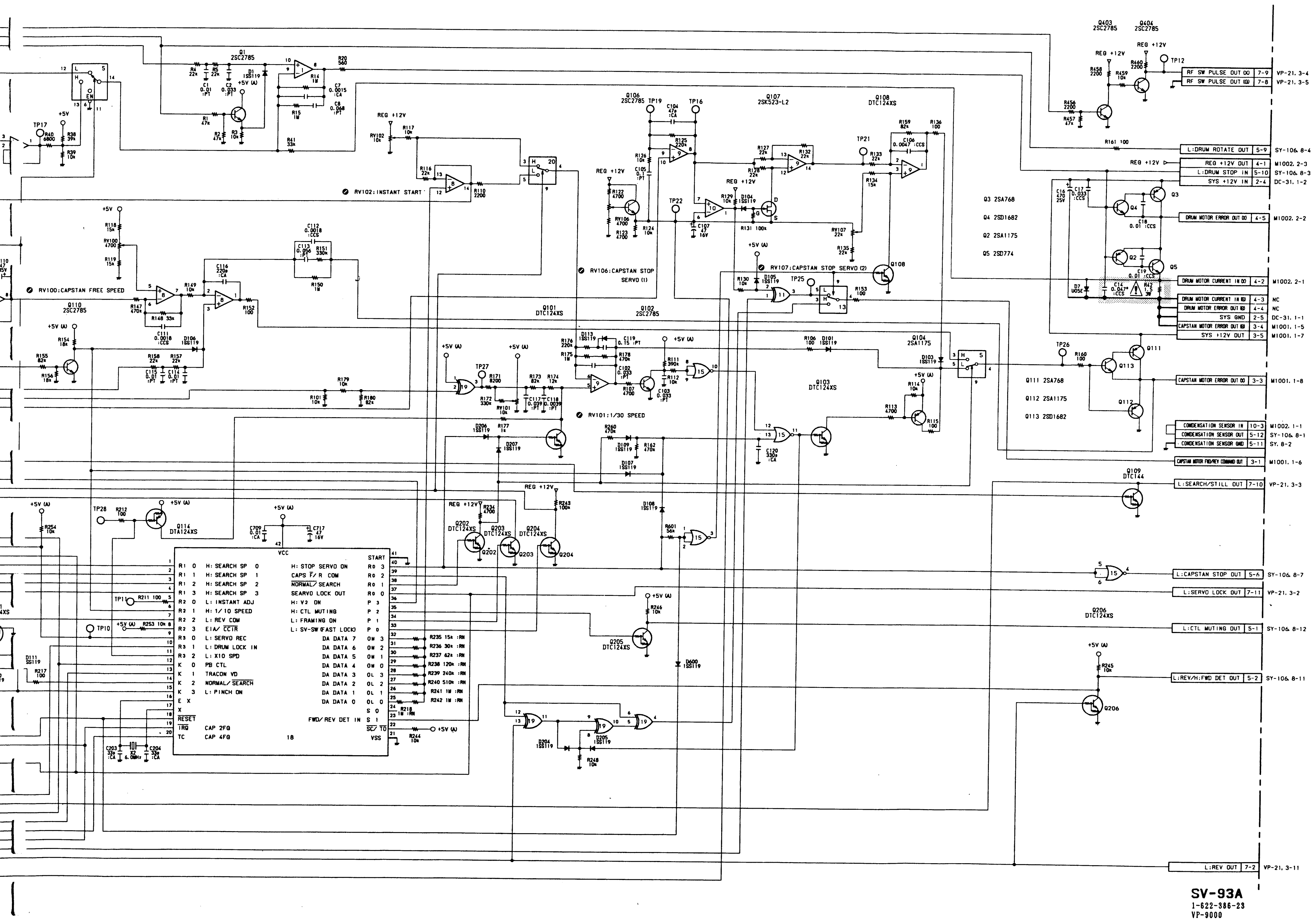
-COMPONENT SIDE-

1-622-386-23
VP-9000

SV-93A: SERVO SYSTEM

UC; S/N 11701 and higher
J; S/N 10201 and higher


DC-31, 1-5 | 2-1 | REG +12V IN
DC-31, 1-4 | 2-2 | REG GND
VP-21, 7-2 | 1-2 | REF VIDEO IN (X)
VP-21, 7-1 | 1-3 | REF VIDEO IN (G)
M1002, 1-4 | 10-6 | SPEED PG-A IN (X)
M1002, 1-3 | 10-5 | SPEED PG GND
M1002, 1-2 | 10-4 | SPEED PG-B IN (X)
M1002, 1-5 | 10-2 | PHASE PG IN (X)
M1002, 1-6 | 10-1 | PHASE PG IN (G)
DC-31, 1-3 | 2-3 | REG +5V (A) IN
SY-106, 8-6 | 5-7 | REG GND
E1 E2 E3
Q501 2SC403SP
IC21 BX3915A
SYNC SEP
VCC
TP1
Q412 2SC2785
TP2
H1003 CTL (PP170-58)
12-2 CTL HEAD (Y)
12-3 CTL HEAD (X)
12-1 CTL HEAD (G)
SY, 7-11 | 6-2 | 1/2 VD OUT (X)
Q304 2SC2785
Q408 2SC403SP
X1 3.58MHz
RV401: DRUM FREE SPEED
RV403: SW POSITION (B)
RV405: SW POSITION (A)
M1001, 1-1 | 11-2 | FG VCC OUT
M1001, 1-2 | 11-4 | DME CH-1 IN (X)
M1001, 1-3 | 11-5 | DME CH-2 IN (X)
M1001, 1-4 | 11-3 | FG GND
VP-21, 3-8 | 7-5 | SYNC PULSE IN (X)
VP-21, 3-9 | 7-4 | SYNC PULSE IN (G)
VP-21, 3-6 | 7-7 | V-BLK PULSE OUT (X)
VP-21, 3-7 | 7-6 | V-BLK PULSE OUT (G)
Q401 2SC2785
Q411 2SC2785
TRACKING
13-1 TRACKING VR (X)
13-3 TRACKING VR (Y)
13-2 TRACKING VR (G)
RV407: TRACKING CONTROL MULTI
RV201: CAPSTAN FWD/REW DET
* IC1 μPC324C
* IC2 NJM4558S
* IC3 NJM4558D-D
* IC5 TC4053BP
* IC8 μPC324C
* IC9 μPC324C
* IC10 μPC339C
* IC11 TC4030BP
* IC12 μPC358C
* IC13 TC4053BP
* IC14 MB84013M
* IC15 TC4001UBP
* IC17 CX-194B-5
* IC18 MB88505-441M
* IC19 TC4030BP
* IC20 TC4053BP
* IC22 μPC358C
VCC (ANALOG)
SPEED (PG-A)
SPEED (PG-B)
PHASE PG
VCC (DIGITAL)
DRUM FREE SPEED
SW POSITION (B)
REF SYNC
SUB CARRIER
SW POSITION (A)
PB CTL
H-02 ON
1/2VD
TRACON VD
FG (A)
FG (B)
PB SYNC
H-FRAMING ON
H-REC
L-CAP LOCK
H-BVU
POWER ON RESET
RF SW PULSE
L DRUM ROTATE
DRUM SPEED PWM
DRUM PHASE PWM
H AFC ON
H-EIR
CAPSTAN PHASE PWM
CAPSTAN SPEED
CAPSTAN SPEED PWM
FG X4
L-DRUM LOCK
V-BLK PULSE
RV1: DRUM AFC TRANSIENT
RV3: DRUM AFC
RV100: CAPSTAN FREE SPEED
Q110 2SC2785
TP3 TP4 TP5 TP6 TP8 TP9 TP15 TP17 TP24 TP28 TP29 TP10
VP-21, 3-1 | 7-12 | SEARCH ×2 OUT
AU-82A, 15-1 | 9-3 | CTL OUT (X)
SY-106, 7-5 | 6-8 | PB CTL OUT
AU-82A, 15-2 | 9-2 | CTL OUT (G)
AU-82A, 15-3 | 9-1 | L:SERVO LOCK OUT
SY-106, 7-1 | 6-12 | SEARCH SPEED 0
SY-106, 7-2 | 6-11 | SEARCH SPEED 1
SY-106, 7-3 | 6-10 | SEARCH SPEED 2
SY-106, 8-10 | 5-3 | SEARCH SPEED 3
SY-106, 8-8 | 5-5 | L:REV COMMAND IN
SY-106, 8-9 | 5-4 | L:SEARCH/H:NORMAL IN
SY-106, 7-7 | 6-6 | L:PINCH SOL ON OUT
KY-105, 7-2 | 14-2 | L:TBC ON IN
VP-21, 7-3 | 1-1 | L:TBC OUT
SY-106, 7-9 | 6-4 | KCS/KCA SW IN
SY-106, 7-10 | 6-3 | L:RESET IN
SY-106, 7-4 | 6-9 | CAPSTAN 2FG OUT
SY-106, 7-6 | 6-7 | L:SERVO LOCK OUT
Q201 DTC124XS


Q403 2SC2785
Q404 2SC2785
REG +12V
TP12
R460 2200
RF SW PULSE OUT (X) 7-9 VP-21, 3-4
RF SW PULSE OUT (Q) 7-8 VP-21, 3-5
L:DRUM ROTATE OUT 5-9 SY-106, 8-4
REG +12V OUT 4-1 M1002, 2-3
L:DRUM STOP IN 5-10 SY-106, 8-3
SYS +12V IN 2-4 DC-31, 1-2
DRUM MOTOR ERROR OUT (X) 4-5 M1002, 2-2
DRUM MOTOR CURRENT IN (X) 4-2 M1002, 2-1
DRUM MOTOR CURRENT IN (G) 4-3 NC
DRUM MOTOR ERROR OUT (G) 4-4 NC
SYS GND 2-5 DC-31, 1-1
CAPSTAN MOTOR ERROR OUT (G) 3-4 M1001, 1-5
SYS +12V OUT 3-5 M1001, 1-7
CAPSTAN MOTOR ERROR OUT (X) 3-3 M1001, 1-8
CONDENSATION SENSOR IN 10-3 M1002, 1-1
CONDENSATION SENSOR OUT 5-12 SY-106, 8-1
CONDENSATION SENSOR GND 5-11 SY, 8-2
CAPSTAN MOTOR FWD/REV COMMAND OUT 3-1 M1001, 1-6
L:SEARCH/STILL OUT 7-10 VP-21, 3-3
L:CAPSTAN STOP OUT 5-6 SY-106, 8-7
L:SERVO LOCK OUT 7-11 VP-21, 3-2
L:CTL MUTING OUT 5-1 SY-106, 8-12
L:REV/H:FWD DET OUT 5-2 SY-106, 8-11
L:REV OUT 7-2 VP-21, 3-11
Q3 2SA768
Q4 2SD1682
Q2 2SA1175
Q5 2SD774
Q111 2SA768
Q112 2SA1175
Q113 2SD1682
R42 1.5 3W
C18 0.01 :CCS
C19 0.01 :CCS
Q1 2SC2785
Q106 2SC2785
Q107 2SK523-L2
Q108 DTC124XS
Q101 DTC124XS
Q102 2SC2785
Q103 DTC124XS
Q104 2SA1175
Q109 DTC144
Q110 2SC2785
Q114 DTA124XS
Q202 DTC124XS
Q203 DTC124XS
Q204 DTC124XS
Q205 DTC124XS
Q206 DTC124XS
RV102:INSTANT START
RV100:CAPSTAN FREE SPEED
RV106:CAPSTAN STOP SERVO (1)
RV107:CAPSTAN STOP SERVO (2)
RV101:1/30 SPEED
TP10
TP11
TP12
TP16
TP17
TP19
TP21
TP22
TP25
TP26
TP27
TP28
+5V (A)
REG +12V
VCC
START
R1 0 H: SEARCH SP 0
R1 1 H: SEARCH SP 1
R1 2 H: SEARCH SP 2
R1 3 H: SEARCH SP 3
R2 0 L: INSTANT ADJ
R2 1 H: 1/10 SPEED
R2 2 L: REV COM
R2 3 EIA/ CCIR
R3 0 L: SERVO REC
R3 1 L: DRUM LOCK IN
R3 2 L: X10 SPD
K 0 PB CTL
K 1 TRACON VD
K 2 NORMAL/ SEARCH
K 3 L: PINCH ON
E X
X
RESET
IRQ CAP 2FG
TC CAP 4FG
18
H: STOP SERVO ON R0 3
CAPS F/ R COM R0 2
NORMAL/ SEARCH R0 1
SEARVO LOCK OUT R0 0
H: V2 ON P 3
H: CTL MUTING P 2
L: FRAMING ON P 1
L: SV-SW (FAST LOCK) P 0
DA DATA 7 OM 3
DA DATA 6 OM 2
DA DATA 5 OM 1
DA DATA 4 OM 0
DA DATA 3 OL 3
DA DATA 2 OL 2
DA DATA 1 OL 1
DA DATA 0 OL 0
S 0
FWD/ REV DET IN S 1
SC/ TO
VSS
R235 15k :RN
R236 30k :RN
R237 62k :RN
R238 120k :RN
R239 240k :RN
R240 510k :RN
R241 1M :RN
R242 1M :RN
R218 1M :RN
R244 10k
C709 0.01 :CA
C717 47 16V
X2 6.0MHz
C204 33p :CA
SV-93A
1-622-386-23
VP-9000

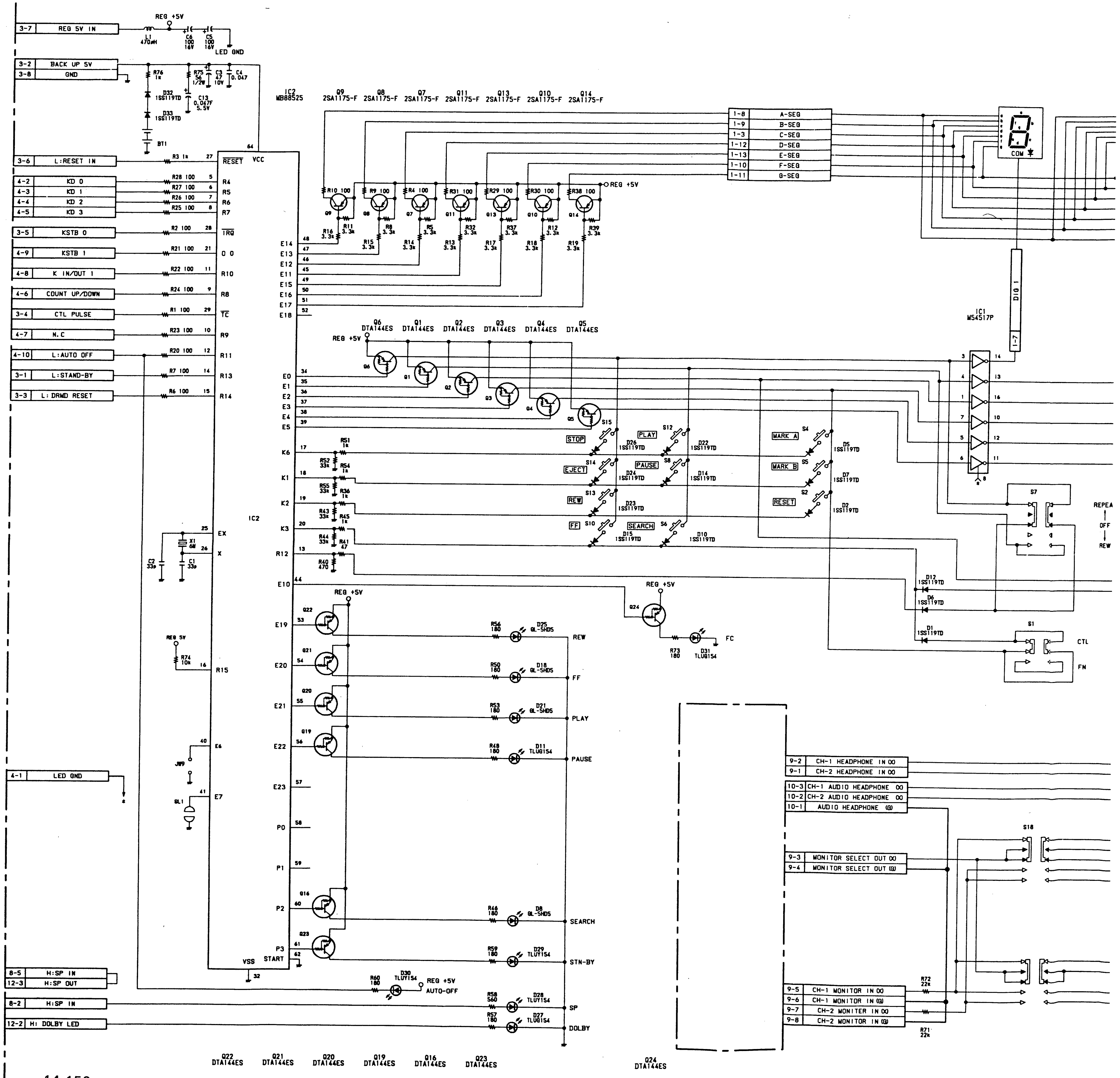
注意 1： ⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

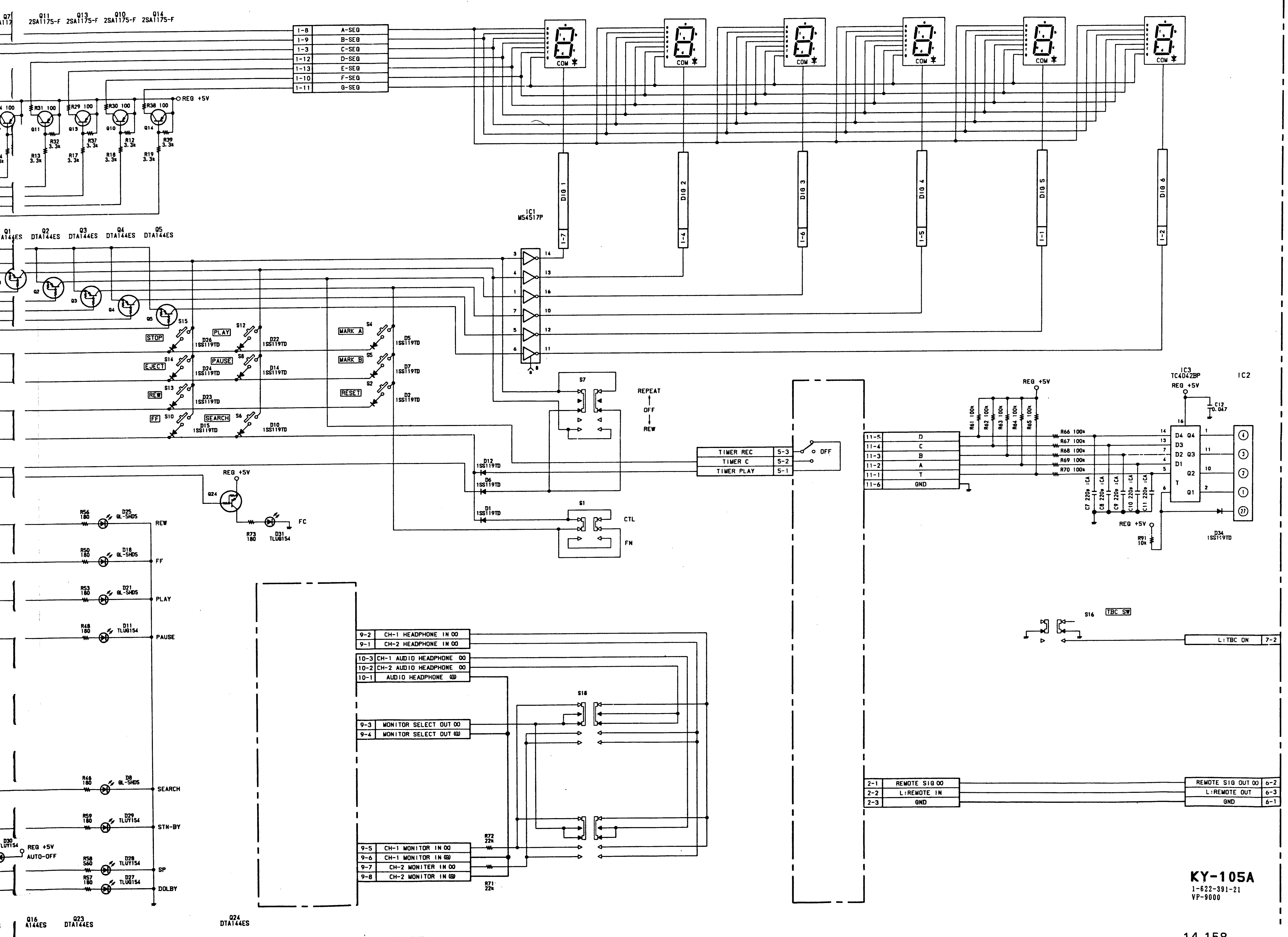
NOTE;

The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.

KY-105A: FUNCTION KEY/DISPLAY

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050


3-7 REG 5V IN
REG +5V
L1 470μH
C6 100 16V
C5 100 16V
LED GND
3-2 BACK UP 5V
3-8 GND
R76 1k
R75 56 1/2W
C3 47 10V
C4 0.047
D32 1SS119TD
C13 0.047F 5.5V
D33 1SS119TD
BT1
3-6 L:RESET IN
4-2 KD 0
4-3 KD 1
4-4 KD 2
4-5 KD 3
3-5 KSTB 0
4-9 KSTB 1
4-8 K IN/OUT 1
4-6 COUNT UP/DOWN
3-4 CTL PULSE
4-7 N.C
4-10 L:AUTO OFF
3-1 L:STAND-BY
3-3 L: DRMD RESET
IC2 MB88525
RESET
VCC
IRQ
TC
EX
X
VSS
START
X1 6M
C2 33p
C1 33p
REG 5V
R74 10k
J89
BL1
4-1 LED GND
8-5 H:SP IN
12-3 H:SP OUT
8-2 H:SP IN
12-2 H: DOLBY LED
Q9 2SA1175-F
Q8 2SA1175-F
Q7 2SA1175-F
Q11 2SA1175-F
Q13 2SA1175-F
Q10 2SA1175-F
Q14 2SA1175-F
1-8 A-SEG
1-9 B-SEG
1-3 C-SEG
1-12 D-SEG
1-13 E-SEG
1-10 F-SEG
1-11 G-SEG
COM
DIG 1
1-7
IC1 M54517P
Q6 DTA144ES
Q1 DTA144ES
Q2 DTA144ES
Q3 DTA144ES
Q4 DTA144ES
Q5 DTA144ES
STOP
PLAY
EJECT
PAUSE
REW
FF
SEARCH
MARK A
MARK B
RESET
S7
REPEAT
OFF
REW
S1
CTL
FN
D12 1SS119TD
D6 1SS119TD
D1 1SS119TD
Q24
R73 180
D31 TLUG154
FC
Q22
Q21
Q20
Q19
Q16
Q23
D25 GL-5HD5
D18 GL-5HD5
D21 GL-5HD5
D11 TLUG154
D8 GL-5HD5
D29 TLUY154
D30 TLUY154
D28 TLUY154
D27 TLUG154
REW
FF
PLAY
PAUSE
SEARCH
STN-BY
AUTO-OFF
SP
DOLBY
Q22 DTA144ES
Q21 DTA144ES
Q20 DTA144ES
Q19 DTA144ES
Q16 DTA144ES
Q23 DTA144ES
Q24 DTA144ES
9-2 CH-1 HEADPHONE IN OO
9-1 CH-2 HEADPHONE IN OO
10-3 CH-1 AUDIO HEADPHONE OO
10-2 CH-2 AUDIO HEADPHONE OO
10-1 AUDIO HEADPHONE (G)
S18
9-3 MONITOR SELECT OUT OO
9-4 MONITOR SELECT OUT (G)
9-5 CH-1 MONITOR IN OO
9-6 CH-1 MONITOR IN (G)
9-7 CH-2 MONITER IN OO
9-8 CH-2 MONITOR IN (G)
R72 22k
R71 22k


Q11 2SA1175-F
Q13 2SA1175-F
Q10 2SA1175-F
Q14 2SA1175-F
1-8 A-SEG
1-9 B-SEG
1-3 C-SEG
1-12 D-SEG
1-13 E-SEG
1-10 F-SEG
1-11 G-SEG
REG +5V
R31 100
R29 100
R30 100
R38 100
R32 3.3k
R37 3.3k
R12 3.3k
R39 3.3k
R13 3.3k
R17 3.3k
R18 3.3k
R19 3.3k
COM
DIG 1
DIG 2
DIG 3
DIG 4
DIG 5
DIG 6
1-7
1-4
1-6
1-5
1-1
1-2
IC1 M54517P
Q1 DTA144ES
Q2 DTA144ES
Q3 DTA144ES
Q4 DTA144ES
Q5 DTA144ES
STOP
S15
PLAY
S12
D26 1SS119TD
D22 1SS119TD
EJECT
S14
PAUSE
S8
D24 1SS119TD
D14 1SS119TD
REW
S13
D23 1SS119TD
FF
S10
SEARCH
S6
D15 1SS119TD
D10 1SS119TD
MARK A
S4
D5 1SS119TD
MARK B
S5
D7 1SS119TD
RESET
S2
D2 1SS119TD
S7
REPEAT
OFF
REW
TIMER REC 5-3
TIMER C 5-2
TIMER PLAY 5-1
OFF
D12 1SS119TD
D6 1SS119TD
D1 1SS119TD
S1
CTL
FN
REG +5V
Q24
R73 180
D31 TLUG154
FC
R56 180
D25 GL-5HD5
REW
R50 180
D18 GL-5HD5
FF
R53 180
D21 GL-5HD5
PLAY
R48 180
D11 TLUG154
PAUSE
R46 180
D8 GL-5HD5
SEARCH
R59 180
D29 TLUY154
STN-BY
D30 TLUY154
REG +5V
AUTO-OFF
R58 560
D28 TLUY154
SP
R57 180
D27 TLUG154
DOLBY
Q16 A144ES
Q23 DTA144ES
Q24 DTA144ES
9-2 CH-1 HEADPHONE IN (X)
9-1 CH-2 HEADPHONE IN (X)
10-3 CH-1 AUDIO HEADPHONE (X)
10-2 CH-2 AUDIO HEADPHONE (X)
10-1 AUDIO HEADPHONE (G)
S18
9-3 MONITOR SELECT OUT (X)
9-4 MONITOR SELECT OUT (G)
9-5 CH-1 MONITOR IN (X)
9-6 CH-1 MONITOR IN (G)
9-7 CH-2 MONITER IN (X)
9-8 CH-2 MONITOR IN (G)
R72 22k
R71 22k
REG +5V
R61 100k
R62 100k
R63 100k
R64 100k
R65 100k
11-5 D
11-4 C
11-3 B
11-2 A
11-1 T
11-6 GND
R66 100k
R67 100k
R68 100k
R69 100k
R70 100k
C7 220p :CA
C8 220p :CA
C9 220p :CA
C10 220p :CA
C11 220p :CA
IC3 TC4042BP
REG +5V
C12 0.047
IC2
D4 Q4
D3
D2 Q3
D1
Q2
T
Q1
④
③
②
①
(27)
REG +5V
R91 10k
D34 1SS119TD
S16
TBC SW
L:TBC ON 7-2
2-1 REMOTE SIG (X)
2-2 L:REMOTE IN
2-3 GND
REMOTE SIG OUT (X) 6-2
L:REMOTE OUT 6-3
GND 6-1

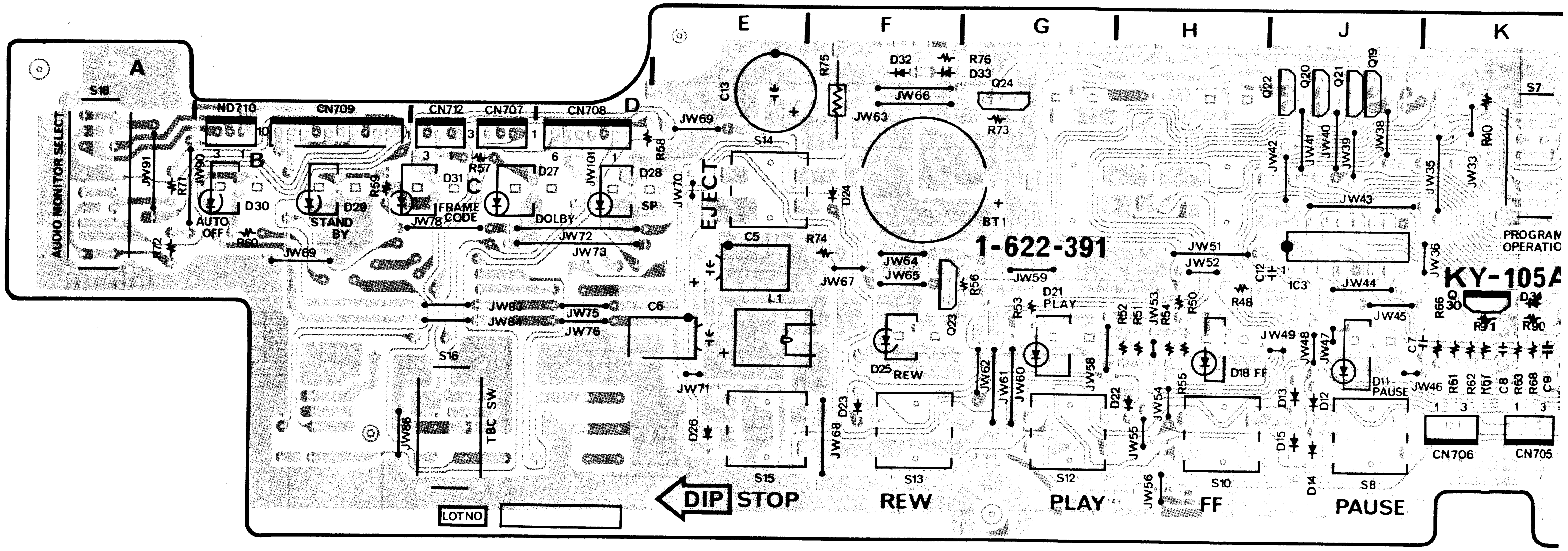
KY-105A
1-622-391-21
VP-9000

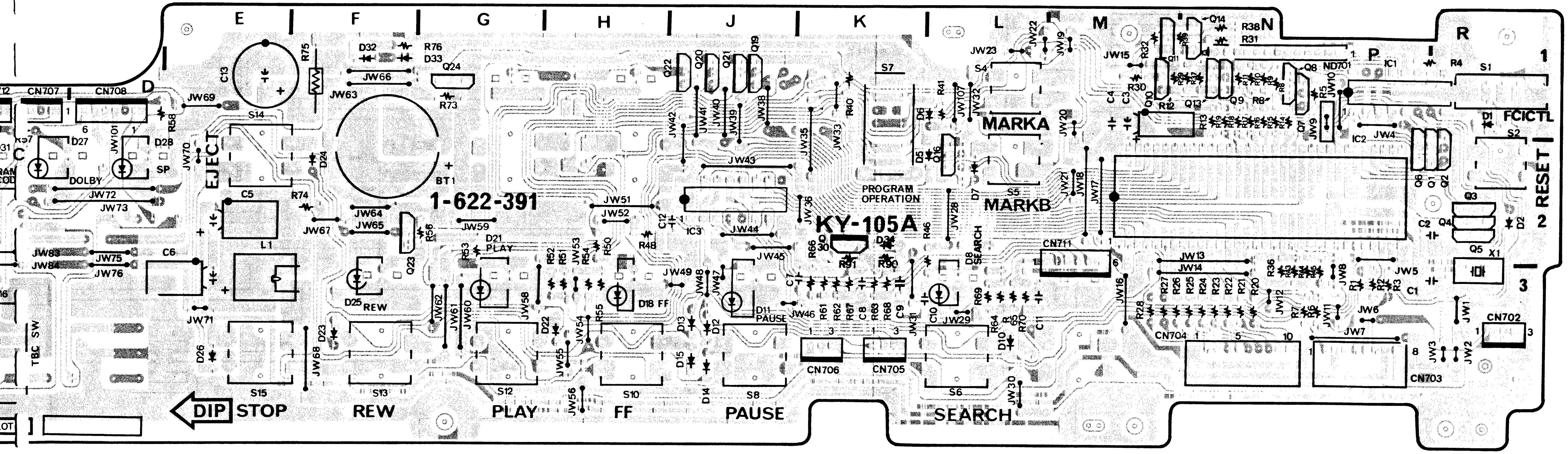
KY-105A: FUNCTION KEY/DISPLAY

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

KY-105A (1-622-391-21)

BT1	F-2
CN702	R-3
CN703	P-3
CN704	N-3
CN705	K-3
CN706	K-3
CN707	C-1
CN708	D-1
CN709	B-1
CN710	B-1
CN711	M-3
CN712	C-1
D1	R-1
D2	R-2
D5	L-2
D6	L-1
D7	L-2
D8	L-3
D10	L-3
D11	J-3
D12	J-3
D13	J-3
D14	J-3
D15	J-3
D18	H-3
D21	G-3
D22	H-3
D23	F-3
D24	F-2
D25	F-3
D26	E-3
D27	C-2
D28	D-2
D29	B-2
D30	B-2
D31	B-2
D32	F-1
D33	F-1
D34	K-2
IC1	P-1
IC2	N-2
IC3	J-2
ND701	N-1
Q1	R-2
Q2	R-2
Q3	R-2
Q4	R-2
Q5	R-2
Q6	P-2
Q7	N-1
Q8	N-1
Q9	N-1
Q10	M-1
Q11	M-1
Q13	N-1
Q14	N-1
Q16	L-2
Q19	J-1
Q20	J-1
Q21	J-1
Q22	J-1
Q23	F-2
Q24	G-1
Q30	K-2
S1	R-1
S2	R-2
S4	L-1
S5	L-2
S6	L-3
S7	K-1
S8	J-3
S10	H-3
S12	G-3
S13	F-3
S14	E-2
S15	E-3
S16	C-3
S18	A-2
SL1	P-2
SL2	F-1
X1	R-3


A
B
C
D
E
F
G
H
J
K
S18
AUDIO MONITOR SELECT
ND710
CN709
CN712
CN707
CN708
JW91
JW90
R71
R72
D30
AUTO OFF
R60
JW89
D29
STAND BY
R59
D31
FRAME CODE
JW78
R57
D27
DOLBY
JW101
D28
SP
R58
JW69
JW70
EJECT
JW72
JW73
JW83
JW84
JW75
JW76
S16
JW86
TBC SW
LOT NO
C13
S14
R75
D32
D33
R76
JW66
JW63
Q24
R73
D24
BT1
1-622-391
C5
R74
L1
C6
JW67
JW64
JW65
R56
Q23
JW59
D21
PLAY
JW71
D26
D25
REW
D23
JW68
S15
S13
JW62
JW61
JW60
R53
JW58
S12
D22
R52
R51
JW53
R54
R50
JW54
R55
JW55
JW56
D18 FF
S10
JW51
JW52
C12
IC3
R48
JW49
JW48
JW47
D13
D12
D15
D14
D11 PAUSE
S8
JW46
Q22
Q20
Q21
Q19
JW42
JW41
JW40
JW39
JW38
JW43
JW44
JW45
JW35
JW33
R40
S7
JW36
PROGRAM OPERATIO
KY-105A
R66
R91
D34
R90
C7
R61
R62
R67
C8
R63
R68
C9
CN706
CN705
DIP
STOP
REW
PLAY
FF
PAUSE


E
F
G
H
J
K
L
M
N
P
R
1
2
3
C
D
CN707
CN708
JW69
C13
R75
D32
D33
R76
Q24
R73
JW66
JW63
S14
EJECT
JW70
D24
BT1
1-622-391
C5
R74
JW67
JW64
JW65
Q23
R56
JW59
L1
C6
JW83
JW84
JW75
JW76
JW72
JW73
DOLBY
SP
D27
D28
JW101
R58
TBC SW
D26
JW71
D23
JW68
S15
DIP
STOP
D25
REW
S13
JW62
JW61
JW60
D21
PLAY
R53
JW58
S12
D22
JW55
JW54
JW56
JW53
R52
R51
R54
R50
R55
D18 FF
S10
FF
JW51
JW52
R48
C12
IC3
JW49
JW48
JW47
D13
D12
D15
D14
D11
PAUSE
S8
Q22
Q20
Q21
Q19
JW42
JW41
JW40
JW39
JW38
JW43
JW44
JW45
JW46
JW35
JW33
JW36
R40
R66
R61
R62
R67
C8
R63
R68
C9
C7
CN706
CN705
KY-105A
R91
R90
D34
S7
PROGRAM
OPERATION
R41
D6
D5
Q16
JW107
JW32
JW28
R46
JW31
C10
JW29
R69
R64
R65
R70
C11
D10
JW30
S6
SEARCH
D8
D7
S4
MARKA
S5
MARKB
JW23
JW22
JW19
JW20
JW21
JW18
JW17
JW16
CN711
JW15
R32
R30
C4
C3
Q10
Q11
R12
Q14
R38
R31
R39
Q13
Q9
R8
Q8
R13
R6
R5
JW10
JW9
D7
ND701
IC1
IC2
JW4
R4
S1
D1
FCICTL
S2
RESET
Q6
Q1
Q2
Q3
Q4
Q5
C2
D2
X1
JW13
JW14
R36
R27
R26
R25
R24
R23
R22
R21
R20
R28
JW12
R7
JW11
JW8
R1
R2
R3
C1
JW5
JW6
JW7
CN704
CN703
JW1
JW2
JW3
CN702

KY-105A

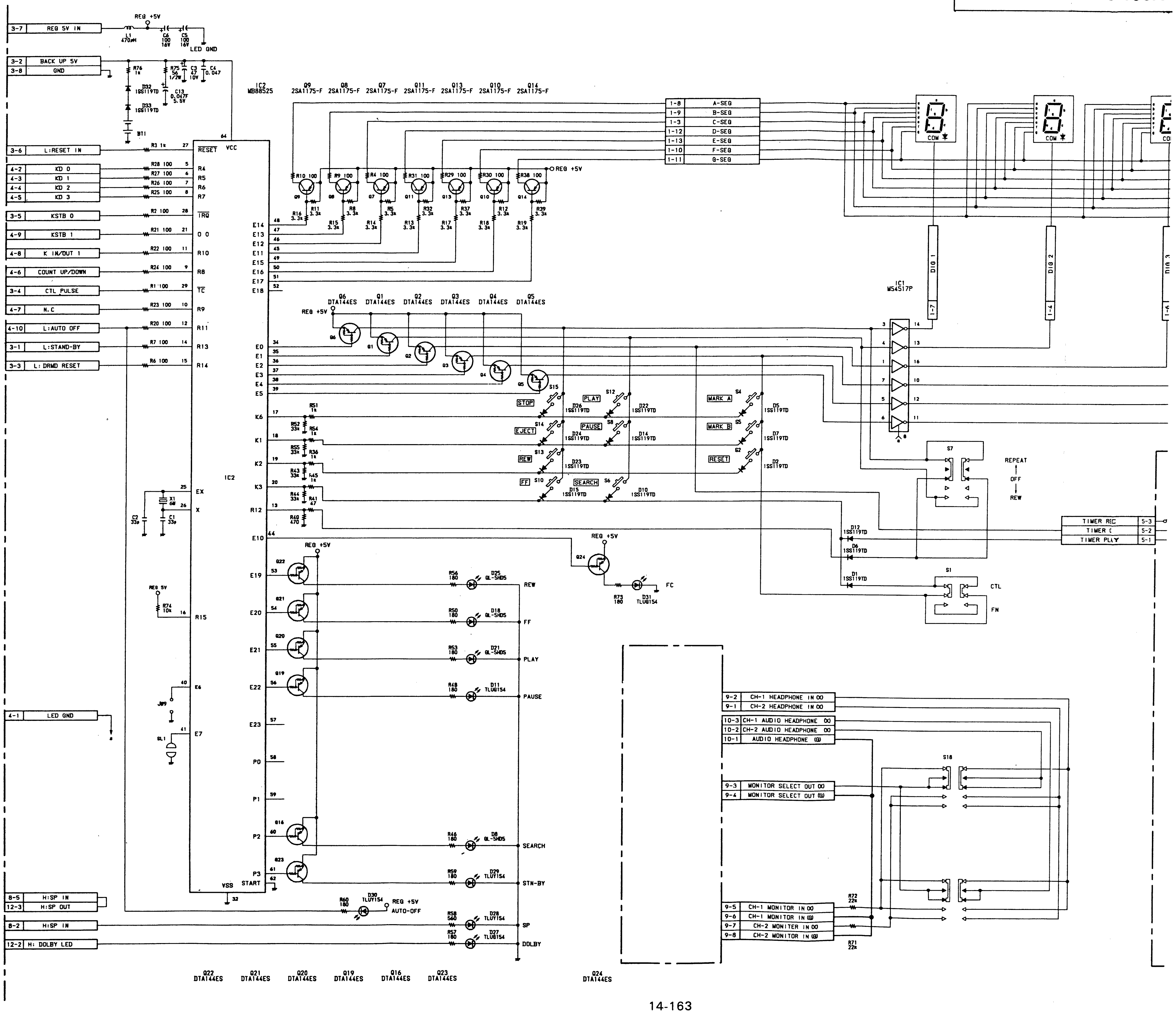
-COMPONENT SIDE-

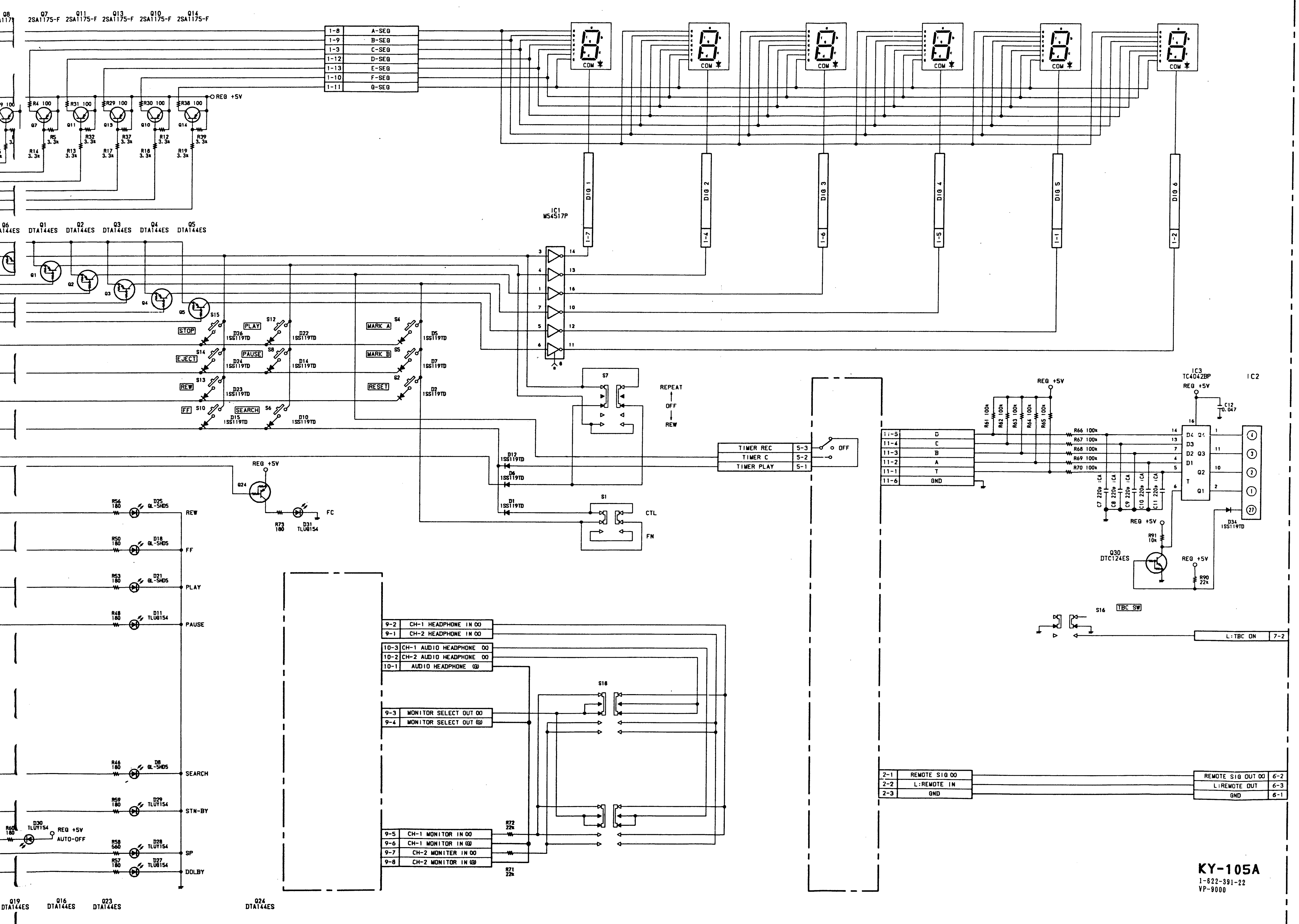
1-622-391-21

VP-9000

KY-105A: FUNCTION KEY/DISPLAY

UC; S/N 10251 thru 10850
J; S/N 10051 thru 10150


3-7 REG 5V IN
3-2 BACK UP 5V
3-8 GND
3-6 L:RESET IN
4-2 KD 0
4-3 KD 1
4-4 KD 2
4-5 KD 3
3-5 KSTB 0
4-9 KSTB 1
4-8 K IN/OUT 1
4-6 COUNT UP/DOWN
3-4 CTL PULSE
4-7 N.C
4-10 L:AUTO OFF
3-1 L:STAND-BY
3-3 L: DRMD RESET
4-1 LED GND
8-5 H:SP IN
12-3 H:SP OUT
8-2 H:SP IN
12-2 H: DOLBY LED
IC2 MB88525
IC1 M54517P
Q9 Q8 Q7 Q11 Q13 Q10 Q14 2SA1175-F
Q6 Q1 Q2 Q3 Q4 Q5 DTA144ES
1-8 A-SEG
1-9 B-SEG
1-3 C-SEG
1-12 D-SEG
1-13 E-SEG
1-10 F-SEG
1-11 G-SEG
DIG 1
DIG 2
DIG 3
STOP
PLAY
EJECT
PAUSE
REW
FF
SEARCH
MARK A
MARK B
RESET
REPEAT
OFF
REW
CTL
FN
TIMER REC 5-3
TIMER (5-2
TIMER PLAY 5-1
REW
FF
PLAY
PAUSE
SEARCH
STN-BY
SP
DOLBY
FC
AUTO-OFF
9-2 CH-1 HEADPHONE IN
9-1 CH-2 HEADPHONE IN
10-3 CH-1 AUDIO HEADPHONE
10-2 CH-2 AUDIO HEADPHONE
10-1 AUDIO HEADPHONE
9-3 MONITOR SELECT OUT
9-4 MONITOR SELECT OUT
9-5 CH-1 MONITOR IN
9-6 CH-1 MONITOR IN
9-7 CH-2 MONITER IN
9-8 CH-2 MONITOR IN
S18
Q22 Q21 Q20 Q19 Q16 Q23 DTA144ES
Q24 DTA144ES

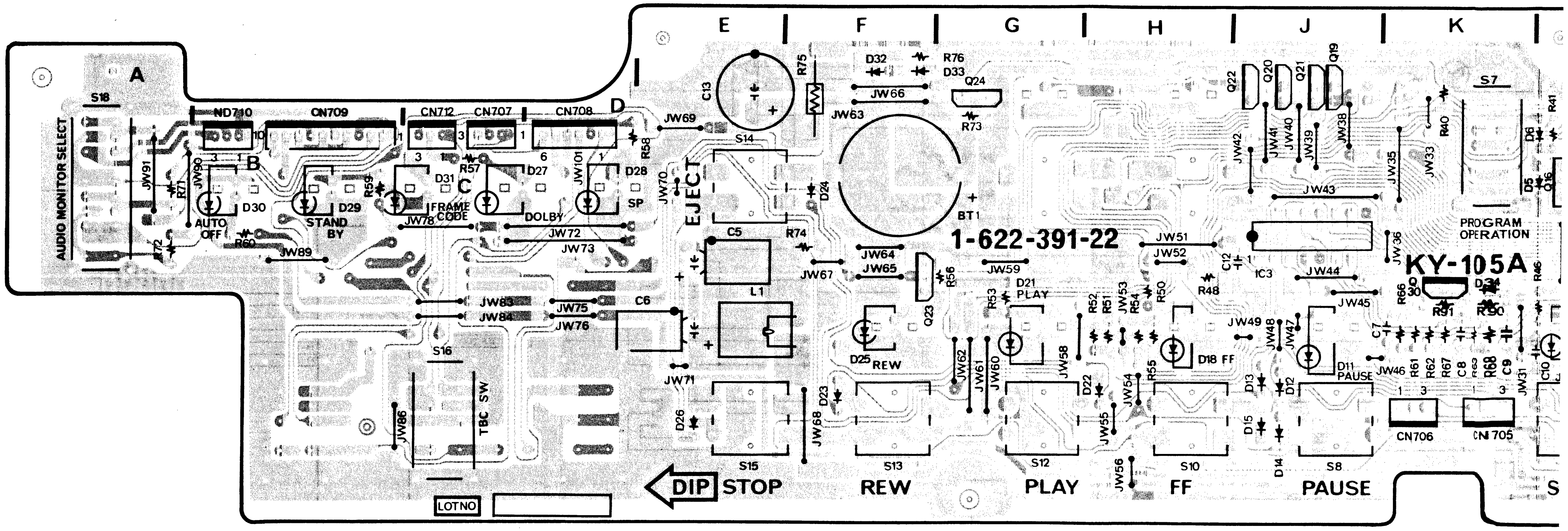

Q8
Q7 2SA1175-F
Q11 2SA1175-F
Q13 2SA1175-F
Q10 2SA1175-F
Q14 2SA1175-F
R4 100
R31 100
R29 100
R30 100
R38 100
REG +5V
R5 3.3k
R32 3.3k
R37 3.3k
R12 3.3k
R39 3.3k
R14 3.3k
R13 3.3k
R17 3.3k
R18 3.3k
R19 3.3k
1-8 A-SEG
1-9 B-SEG
1-3 C-SEG
1-12 D-SEG
1-13 E-SEG
1-10 F-SEG
1-11 G-SEG
COM
DIG 1
DIG 2
DIG 3
DIG 4
DIG 5
DIG 6
1-7
1-4
1-6
1-5
1-1
1-2
IC1 M54517P
Q6
Q1 DTA144ES
Q2 DTA144ES
Q3 DTA144ES
Q4 DTA144ES
Q5 DTA144ES
S15
STOP
D26 1SS119TD
PLAY
S12
D22 1SS119TD
S14
EJECT
D24 1SS119TD
PAUSE
S8
D14 1SS119TD
S13
REW
D23 1SS119TD
FF
S10
SEARCH
S6
D15 1SS119TD
D10 1SS119TD
MARK A
S4
D5 1SS119TD
MARK B
S5
D7 1SS119TD
RESET
S2
D2 1SS119TD
S7
REPEAT
OFF
REW
D12 1SS119TD
D6 1SS119TD
D1 1SS119TD
S1
CTL
FN
TIMER REC 5-3
TIMER C 5-2
TIMER PLAY 5-1
OFF
REG +5V
Q24
R73 180
D31 TLUG154
FC
R56 180
D25 GL-5HD5
REW
R50 180
D18 GL-5HD5
FF
R53 180
D21 GL-5HD5
PLAY
R48 180
D11 TLUG154
PAUSE
R46 180
D8 GL-5HD5
SEARCH
R59 180
D29 TLUY154
STN-BY
R60 180
D30 TLUY154
REG +5V
AUTO-OFF
R58 560
D28 TLUY154
SP
R57 180
D27 TLUG154
DOLBY
Q19 DTA144ES
Q16 DTA144ES
Q23 DTA144ES
Q24 DTA144ES
9-2 CH-1 HEADPHONE IN (X)
9-1 CH-2 HEADPHONE IN (X)
10-3 CH-1 AUDIO HEADPHONE (X)
10-2 CH-2 AUDIO HEADPHONE (X)
10-1 AUDIO HEADPHONE (G)
9-3 MONITOR SELECT OUT (X)
9-4 MONITOR SELECT OUT (G)
S18
R72 22k
9-5 CH-1 MONITOR IN (X)
9-6 CH-1 MONITOR IN (G)
9-7 CH-2 MONITER IN (X)
9-8 CH-2 MONITOR IN (G)
R71 22k
REG +5V
R61 100k
R62 100k
R63 100k
R64 100k
R65 100k
11-5 D
11-4 C
11-3 B
11-2 A
11-1 T
11-6 GND
R66 100k
R67 100k
R68 100k
R69 100k
R70 100k
C7 220p :CA
C8 220p :CA
C9 220p :CA
C10 220p :CA
C11 220p :CA
IC3 TC4042BP
REG +5V
C12 0.047
IC2
D4 Q4
D3
D2 Q3
D1
Q2
T
Q1
D34 1SS119TD
REG +5V
R91 10k
Q30 DTC124ES
REG +5V
R90 22k
S16
TBC SW
L:TBC ON 7-2
2-1 REMOTE SIG (X)
2-2 L:REMOTE IN
2-3 GND
REMOTE SIG OUT (X) 6-2
L:REMOTE OUT 6-3
GND 6-1
KY-105A
1-622-391-22
VP-9000

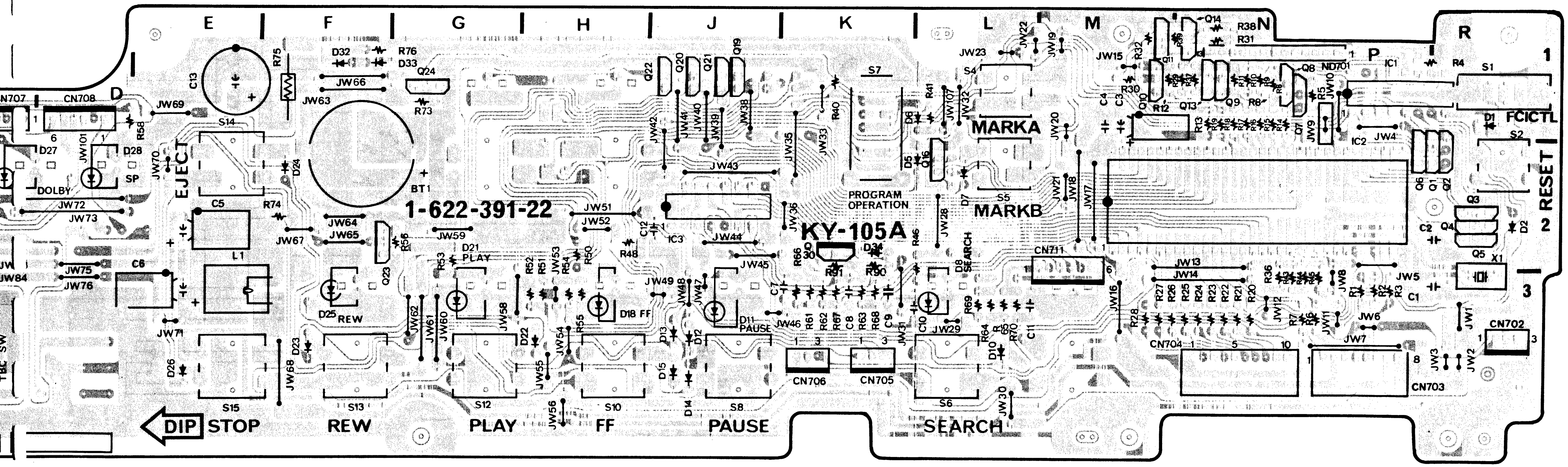
KY-105A: FUNCTION KEY/DISPLAY

UC; S/N 10001 thru 10850
J; S/N 10001 thru 10150

KY-105A (1-622-391-22)

BT1	F-2
CN702	R-3
CN703	P-3
CN704	N-3
CN705	K-3
CN706	K-3
CN707	C-1
CN708	D-1
CN709	B-1
CN710	B-1
CN711	M-3
CN712	C-1
D1	R-1
D2	R-2
D5	L-2
D6	L-1
D7	L-2
D8	L-3
D10	L-3
D11	J-3
D12	J-3
D13	J-3
D14	J-3
D15	J-3
D18	H-3
D21	G-3
D22	H-3
D23	F-3
D24	F-2
D25	F-3
D26	E-3
D27	C-2
D28	D-2
D29	B-2
D30	B-2
D31	B-2
D32	F-1
D33	F-1
D34	K-2
IC1	P-1
IC2	N-2
IC3	J-2
ND701	N-1
Q1	R-2
Q2	R-2
Q3	R-2
Q4	R-2
Q5	R-2
Q6	P-2
Q7	N-1
Q8	N-1
Q9	N-1
Q10	M-1
Q11	M-1
Q13	N-1
Q14	N-1
Q16	L-2
Q19	J-1
Q20	J-1
Q21	J-1
Q22	J-1
Q23	F-2
Q24	G-1
Q30	K-2
S1	R-1
S2	R-2
S4	L-1
S5	L-2
S6	L-3
S7	K-1
S8	J-3
S10	H-3
S12	G-3
S13	F-3
S14	E-2
S15	E-3
S16	C-3
S18	A-2
SL1	P-2
SL2	F-1
X1	R-3


A
B
C
D
E
F
G
H
J
K
S18
AUDIO MONITOR SELECT
ND710
CN709
CN712
CN707
CN708
D30
AUTO OFF
D29
STAND BY
D31
FRAME CODE
D27
DOLBY
D28
SP
EJECT
S14
C13
R75
D32
D33
R76
JW66
JW63
Q24
R73
BT1
1-622-391-22
C5
L1
C6
S16
TBC SW
LOT NO
D25
REW
D21
PLAY
D18 FF
D11
PAUSE
IC3
Q22
Q20
Q21
Q19
S7
PROGRAM OPERATION
KY-105A
D34
CN706
CN705
DIP
STOP
S15
REW
S13
PLAY
S12
FF
S10
PAUSE
S8


E
F
G
H
J
K
L
M
N
P
R
1
2
3
CN707
CN708
D
1-622-391-22
KY-105A
PROGRAM
OPERATION
EJECT
DOLBY
SP
BT1
S14
S15
S13
S12
S10
S8
S6
S7
S4
S5
S1
S2
MARKA
MARKB
FCICTL
RESET
D21 PLAY
D25 REW
D18 FF
D11 PAUSE
D8 SEARCH
CN711
CN706
CN705
CN704
CN703
CN702
IC1
IC2
IC3
ND701
X1
C13
C5
C6
L1
DIP
STOP
REW
PLAY
FF
PAUSE
SEARCH
TBC SW

KY-105 A

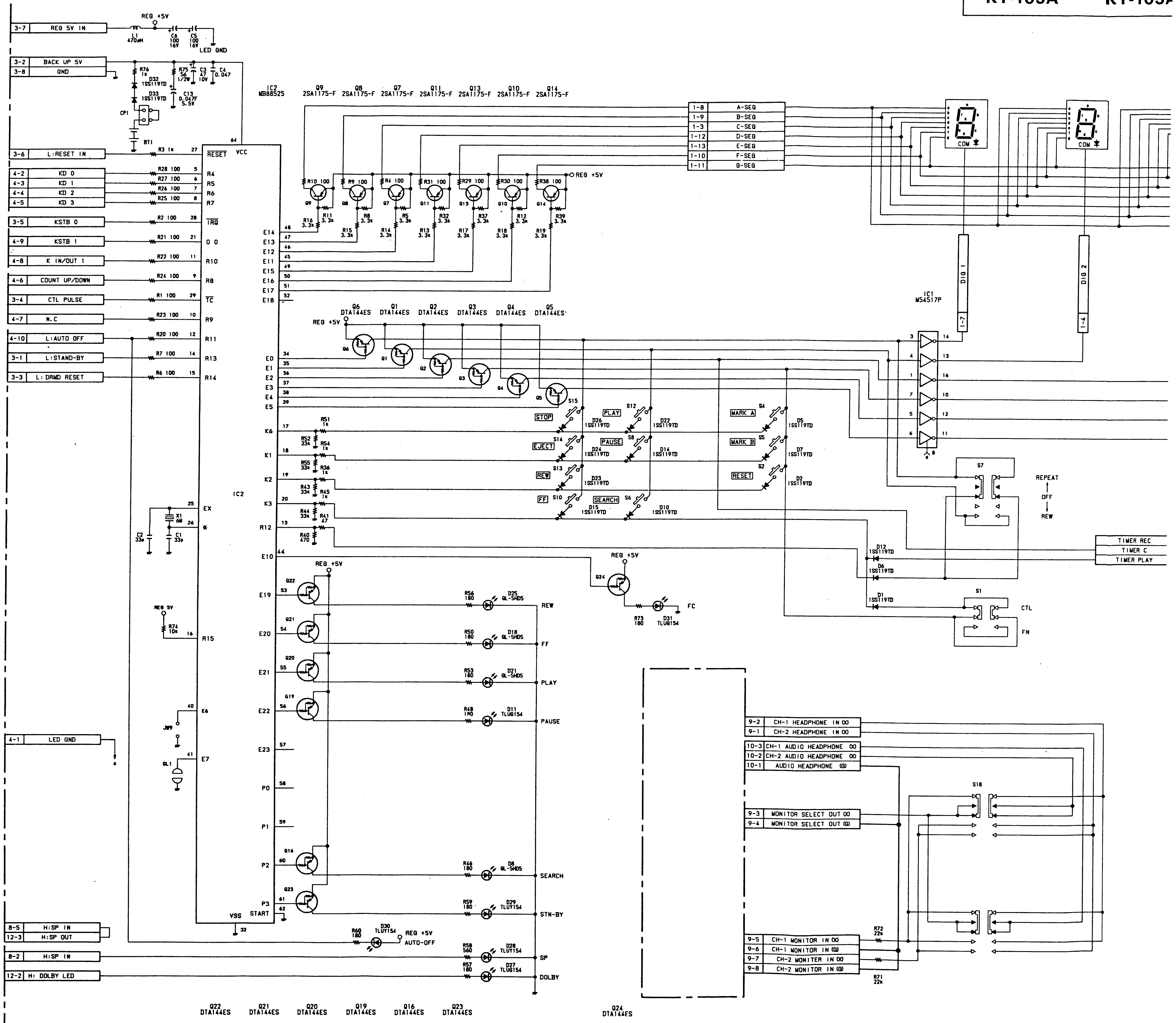
-COMPONENT SIDE-

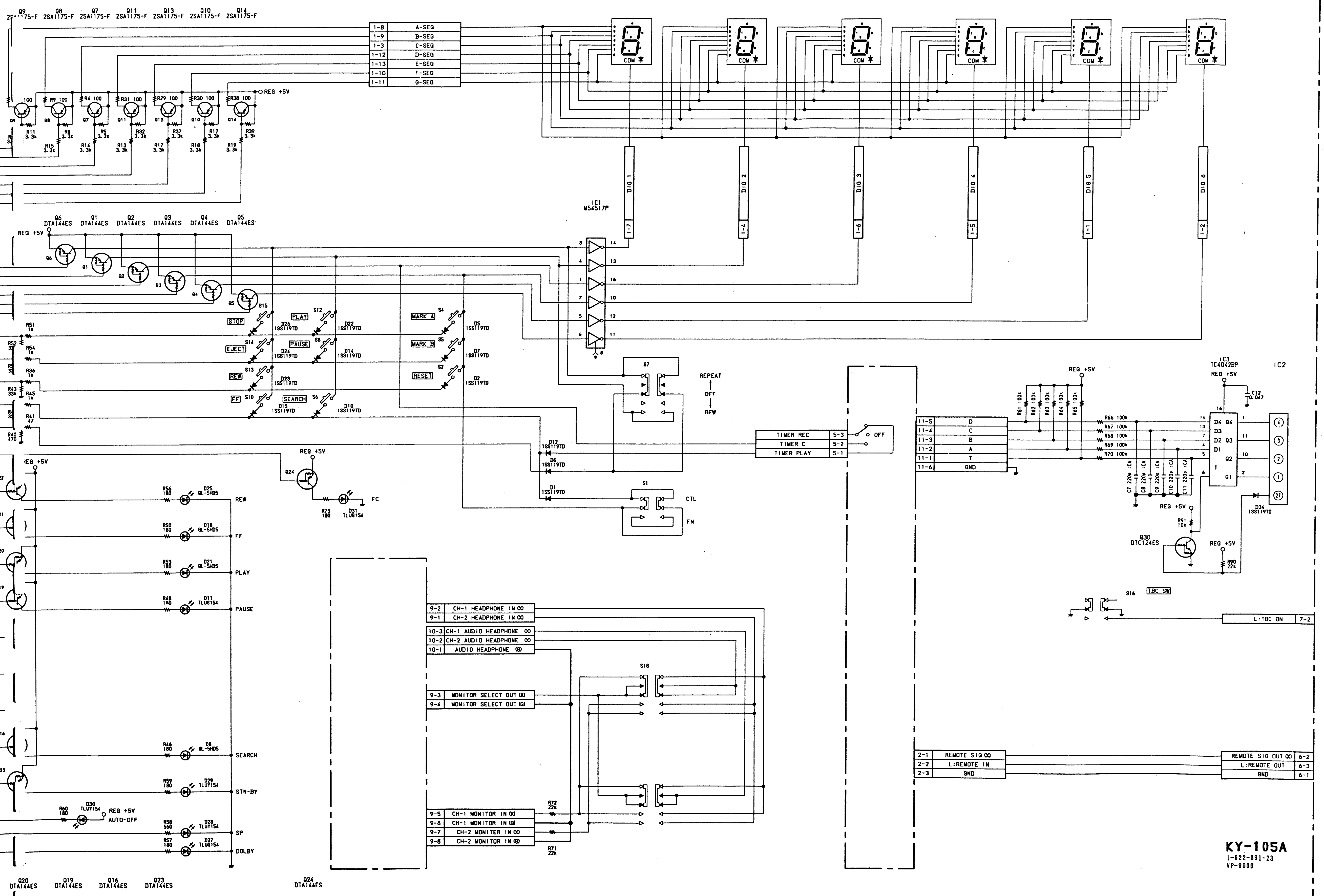
1-622-391-22

VP-9000

KY-105A: FUNCTION KEY/DISPLAY

UC; S/N 10851 thru 11250


3-7 REG 5V IN
3-2 BACK UP 5V
3-8 GND
3-6 L:RESET IN
4-2 KD 0
4-3 KD 1
4-4 KD 2
4-5 KD 3
3-5 KSTB 0
4-9 KSTB 1
4-8 K IN/OUT 1
4-6 COUNT UP/DOWN
3-4 CTL PULSE
4-7 N.C
4-10 L:AUTO OFF
3-1 L:STAND-BY
3-3 L: DRMD RESET
4-1 LED GND
8-5 H:SP IN
12-3 H:SP OUT
8-2 H:SP IN
12-2 H: DOLBY LED
REG +5V
LED GND
IC2 MB88525
IC2
IC1 M54517P
Q9 Q8 Q7 Q11 Q13 Q10 Q14 2SA1175-F
Q6 Q1 Q2 Q3 Q4 Q5 DTA144ES
1-8 A-SEG
1-9 B-SEG
1-3 C-SEG
1-12 D-SEG
1-13 E-SEG
1-10 F-SEG
1-11 G-SEG
DIG 1
DIG 2
1-7
1-4
COM
STOP
PLAY
EJECT
PAUSE
REW
FF
SEARCH
MARK A
MARK B
RESET
S7
REPEAT
OFF
REW
TIMER REC
TIMER C
TIMER PLAY
S1
CTL
FN
FC
REW
FF
PLAY
PAUSE
SEARCH
STN-BY
AUTO-OFF
SP
DOLBY
9-2 CH-1 HEADPHONE IN (H)
9-1 CH-2 HEADPHONE IN (H)
10-3 CH-1 AUDIO HEADPHONE (H)
10-2 CH-2 AUDIO HEADPHONE (H)
10-1 AUDIO HEADPHONE (G)
S18
9-3 MONITOR SELECT OUT (H)
9-4 MONITOR SELECT OUT (G)
9-5 CH-1 MONITOR IN (H)
9-6 CH-1 MONITOR IN (G)
9-7 CH-2 MONITER IN (H)
9-8 CH-2 MONITOR IN (G)
Q22 Q21 Q20 Q19 Q16 Q23 DTA144ES
Q24 DTA144ES

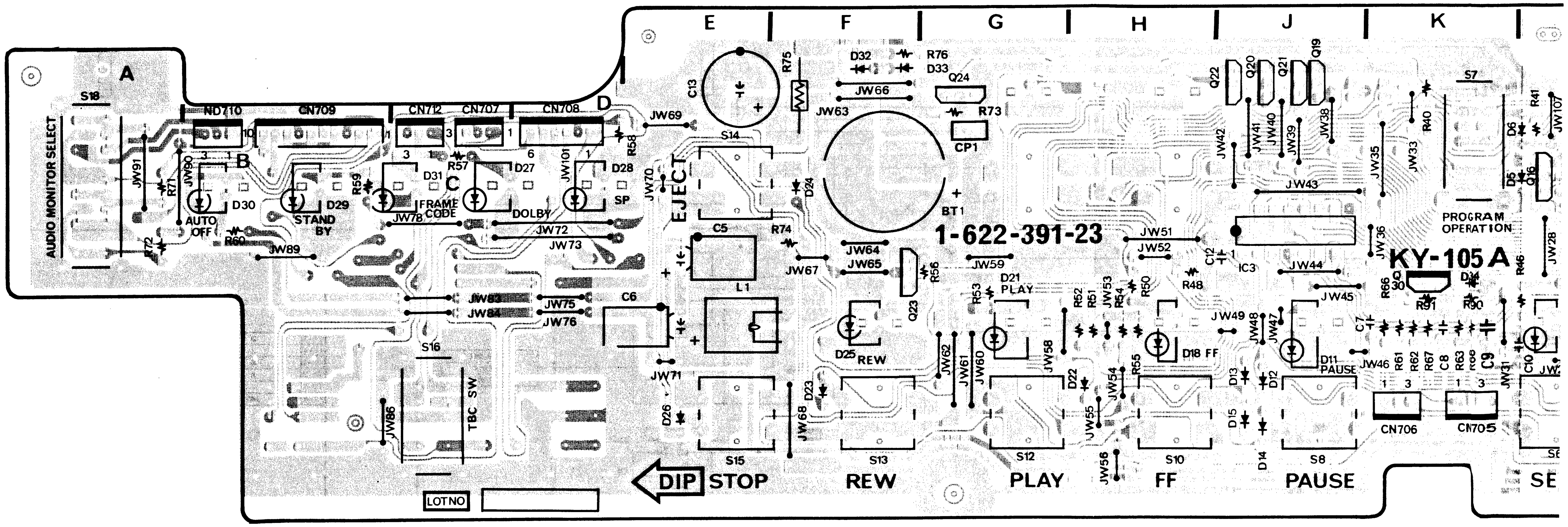

Q9 2SA1175-F
Q8 2SA1175-F
Q7 2SA1175-F
Q11 2SA1175-F
Q13 2SA1175-F
Q10 2SA1175-F
Q14 2SA1175-F
1-8 A-SEG
1-9 B-SEG
1-3 C-SEG
1-12 D-SEG
1-13 E-SEG
1-10 F-SEG
1-11 G-SEG
REG +5V
COM
DIG 1
DIG 2
DIG 3
DIG 4
DIG 5
DIG 6
1-7
1-4
1-6
1-5
1-1
1-2
IC1 M54517P
Q6 DTA144ES
Q1 DTA144ES
Q2 DTA144ES
Q3 DTA144ES
Q4 DTA144ES
Q5 DTA144ES
STOP
PLAY
EJECT
PAUSE
REW
FF
SEARCH
MARK A
MARK B
RESET
D26 1SS119TD
D22 1SS119TD
D24 1SS119TD
D14 1SS119TD
D23 1SS119TD
D15 1SS119TD
D10 1SS119TD
D5 1SS119TD
D7 1SS119TD
D2 1SS119TD
S7
REPEAT
OFF
REW
D12 1SS119TD
D6 1SS119TD
D1 1SS119TD
S1
CTL
FN
TIMER REC 5-3
TIMER C 5-2
TIMER PLAY 5-1
OFF
Q24
FC
R73 180
D31 TLUG154
REW
FF
PLAY
PAUSE
SEARCH
STN-BY
AUTO-OFF
SP
DOLBY
D25 GL-5HD5
D18 GL-5HD5
D21 GL-5HD5
D11 TLUG154
D8 GL-5HD5
D29 TLUY154
D30 TLUY154
D28 TLUY154
D27 TLUG154
Q20 DTA144ES
Q19 DTA144ES
Q16 DTA144ES
Q23 DTA144ES
Q24 DTA144ES
9-2 CH-1 HEADPHONE IN (X)
9-1 CH-2 HEADPHONE IN (X)
10-3 CH-1 AUDIO HEADPHONE (X)
10-2 CH-2 AUDIO HEADPHONE (X)
10-1 AUDIO HEADPHONE (G)
9-3 MONITOR SELECT OUT (X)
9-4 MONITOR SELECT OUT (G)
S18
9-5 CH-1 MONITOR IN (X)
9-6 CH-1 MONITOR IN (G)
9-7 CH-2 MONITER IN (X)
9-8 CH-2 MONITOR IN (G)
R72 22k
R71 22k
11-5 D
11-4 C
11-3 B
11-2 A
11-1 T
11-6 GND
IC3 TC4042BP
IC2
C12 0.047
R66 100k
R67 100k
R68 100k
R69 100k
R70 100k
C7 220p
C8 220p
C9 220p
C10 220p
C11 220p
D34 1SS119TD
Q30 DTC124ES
R91 10k
R90 22k
S16
TBC SW
L:TBC ON 7-2
2-1 REMOTE SIG (X)
2-2 L:REMOTE IN
2-3 GND
REMOTE SIG OUT (X) 6-2
L:REMOTE OUT 6-3
GND 6-1
KY-105A
1-622-391-23
VP-9000

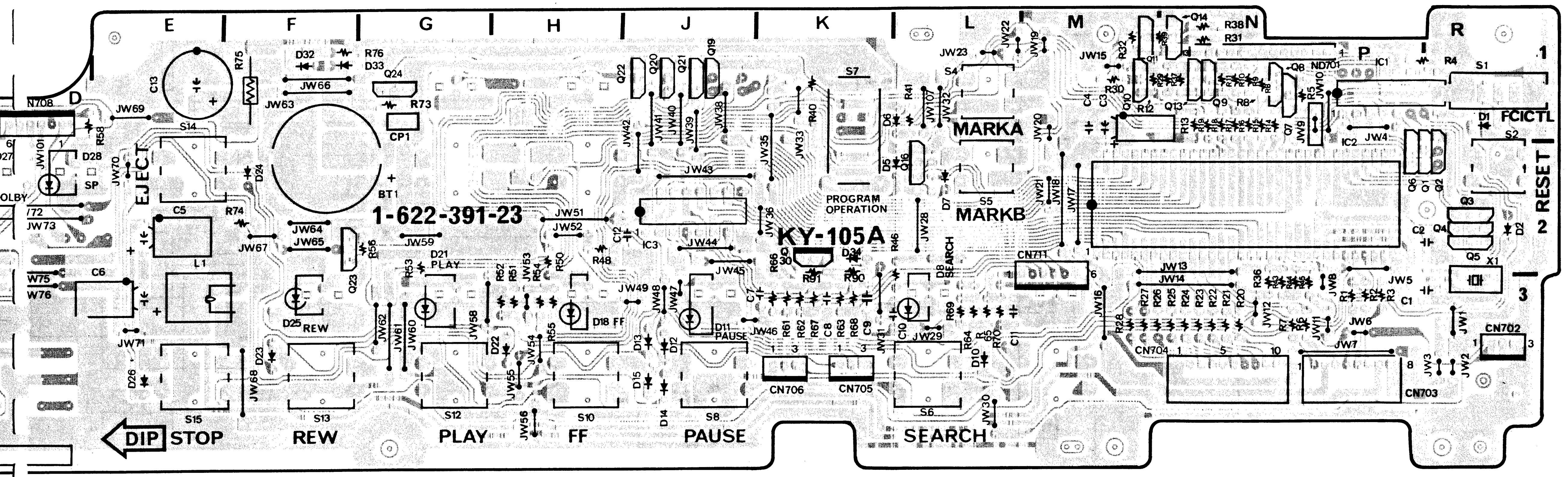
KY-105A: FUNCTION KEY/DISPLAY

UC; S/N 10851 thru 11250

KY-105A (1-622-391-23)

BT1	F-2
CN702	R-3
CN703	P-3
CN704	N-3
CN705	K-3
CN706	K-3
CN707	C-1
CN708	D-1
CN709	B-1
CN711	M-3
CN712	C-1
CP1	G-1
D1	R-1
D2	R-2
D5	L-2
D6	L-1
D7	L-2
D8	L-3
D10	L-3
D11	J-3
D12	J-3
D13	J-3
D14	J-3
D15	J-3
D18	H-3
D21	G-3
D22	H-3
D23	F-3
D24	F-2
D25	F-3
D26	E-3
D27	C-2
D28	D-2
D29	B-2
D30	B-2
D31	B-2
D32	F-1
D33	F-1
D34	K-2
IC1	P-1
IC2	N-2
IC3	J-2
ND701	N-1
Q1	R-2
Q2	R-2
Q3	R-2
Q4	R-2
Q5	R-2
Q6	P-2
Q7	N-1
Q8	N-1
Q9	N-1
Q10	M-1
Q11	M-1
Q13	N-1
Q14	N-1
Q16	L-2
Q19	J-1
Q20	J-1
Q21	J-1
Q22	J-1
Q23	F-2
Q24	G-1
Q30	K-2
S1	R-1
S2	R-2
S4	L-1
S5	L-2
S6	L-3
S7	K-1
S8	J-3
S10	H-3
S12	G-3
S13	F-3
S14	E-2
S15	E-3
S16	C-3
S18	A-2
X1	R-3


A
B
C
D
E
F
G
H
J
K
AUDIO MONITOR SELECT
S18
ND710
CN709
CN712
CN707
CN708
AUTO OFF
STAND BY
FRAME CODE
DOLBY
SP
EJECT
TBC SW
S16
LOT NO
BT1
1-622-391-23
KY-105A
PROGRAM OPERATION
IC3
CN706
CN705
D21 PLAY
D25 REW
D18 FF
D11 PAUSE
S15
S13
S12
S10
S8
DIP
STOP
REW
PLAY
FF
PAUSE
SE


E
F
G
H
J
K
L
M
N
P
R
1-622-391-23
KY-105A
PROGRAM OPERATION
EJECT
DIP
STOP
REW
PLAY
FF
PAUSE
SEARCH
MARKA
MARKB
FCICTL
RESET
1
2
3
S1
S2
S4
S5
S6
S7
S8
S10
S12
S13
S14
S15
BT1
IC1
IC2
IC3
ND701
L1
X1
CP1
CN702
CN703
CN704
CN705
CN706
CN711
N708
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
D1
D2
D5
D6
D7
D8
D10
D11 PAUSE
D12
D13
D14
D15
D18 FF
D21 PLAY
D22
D23
D24
D25 REW
D26
D28
D32
D33
D34
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
Q11
Q13
Q14
Q16
Q19
Q20
Q21
Q22
Q23
Q24
Q30
R4
R5
R8
R12
R13
R30
R31
R32
R36
R38
R40
R41
R46
R48
R50
R51
R52
R53
R54
R55
R56
R58
R61
R62
R63
R64
R65
R66
R67
R68
R69
R70
R73
R74
R75
R76
R90
R91
SP
JW1
JW2
JW3
JW4
JW5
JW6
JW7
JW8
JW9
JW10
JW11
JW12
JW13
JW14
JW15
JW16
JW17
JW18
JW19
JW20
JW21
JW22
JW23
JW28
JW29
JW30
JW31
JW32
JW33
JW35
JW36
JW38
JW39
JW40
JW41
JW42
JW43
JW44
JW45
JW46
JW47
JW48
JW49
JW51
JW52
JW53
JW54
JW55
JW56
JW58
JW59
JW60
JW61
JW62
JW63
JW64
JW65
JW66
JW67
JW68
JW69
JW70
JW71
JW73
JW75
JW76
JW101
JW107

KY-105A

-COMPONENT SIDE-

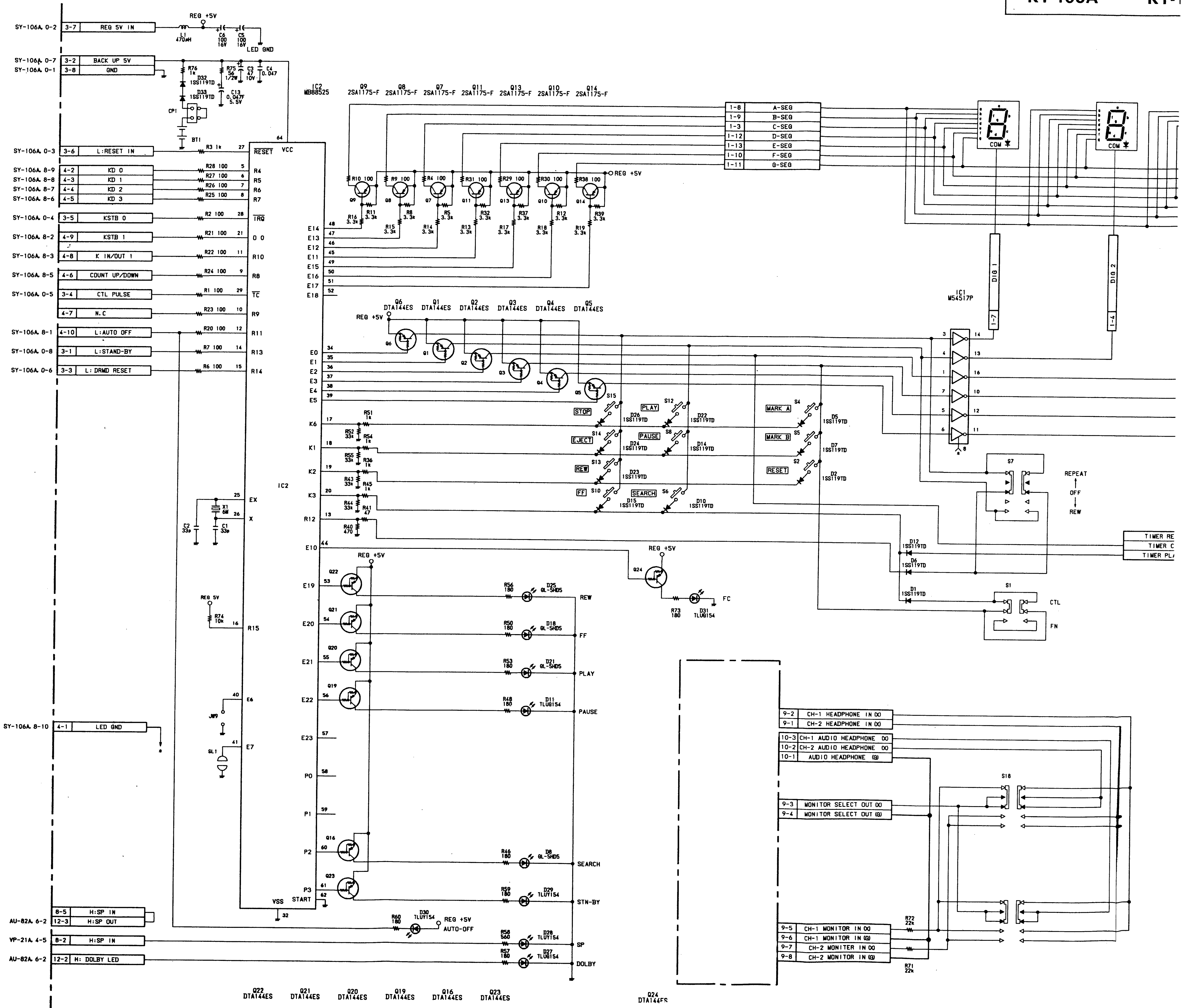
1-622-391-23

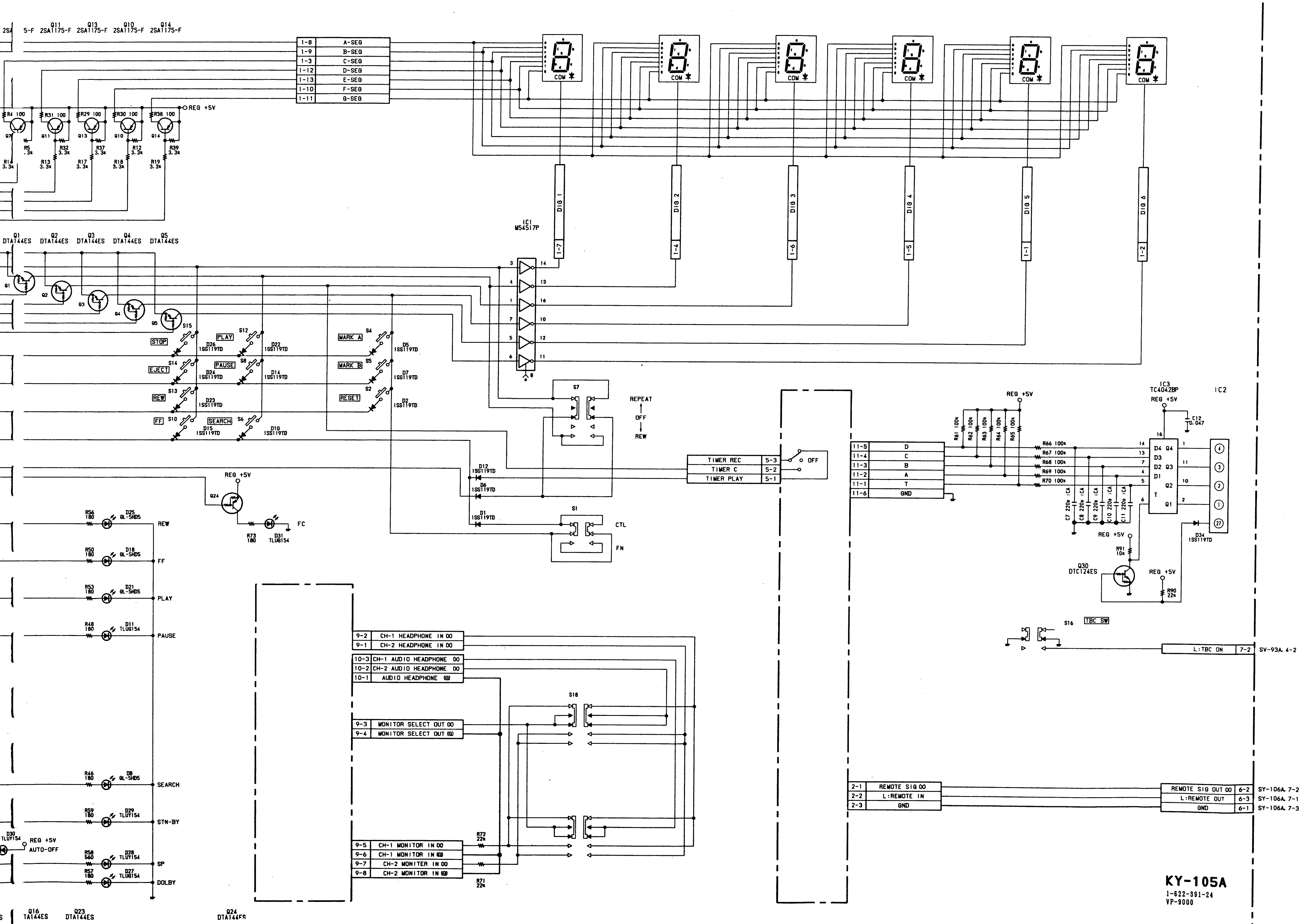
VP-9000

KY-105A: FUNCTION KEY/DISPLAY

UC; S/N 11251 and higher

J; S/N 10151 and higher


SY-106A 0-2 3-7 REG 5V IN
SY-106A 0-7 3-2 BACK UP 5V
SY-106A 0-1 3-8 GND
SY-106A 0-3 3-6 L:RESET IN
SY-106A 8-9 4-2 KD 0
SY-106A 8-8 4-3 KD 1
SY-106A 8-7 4-4 KD 2
SY-106A 8-6 4-5 KD 3
SY-106A 0-4 3-5 KSTB 0
SY-106A 8-2 4-9 KSTB 1
SY-106A 8-3 4-8 K IN/OUT 1
SY-106A 8-5 4-6 COUNT UP/DOWN
SY-106A 0-5 3-4 CTL PULSE
4-7 N.C
SY-106A 8-1 4-10 L:AUTO OFF
SY-106A 0-8 3-1 L:STAND-BY
SY-106A 0-6 3-3 L:DRMD RESET
SY-106A 8-10 4-1 LED GND
AU-82A 6-2 8-5 H:SP IN
12-3 H:SP OUT
VP-21A 4-5 8-2 H:SP IN
AU-82A 6-2 12-2 H:DOLBY LED
REG +5V
LED GND
IC2 MB88525
RESET VCC
IRQ
TC
EX
X
R15
E6
E7
VSS START
Q9 2SA1175-F Q8 2SA1175-F Q7 2SA1175-F Q11 2SA1175-F Q13 2SA1175-F Q10 2SA1175-F Q14 2SA1175-F
Q6 DTA144ES Q1 DTA144ES Q2 DTA144ES Q3 DTA144ES Q4 DTA144ES Q5 DTA144ES
1-8 A-SEG
1-9 B-SEG
1-3 C-SEG
1-12 D-SEG
1-13 E-SEG
1-10 F-SEG
1-11 G-SEG
COM
DIG 1
DIG 2
1-7
1-4
IC1 M54517P
STOP
PLAY
EJECT
PAUSE
REW
SEARCH
FF
MARK A
MARK B
RESET
S7
REPEAT
OFF
REW
TIMER RE
TIMER C
TIMER PL
S1
CTL
FN
REW
FF
PLAY
PAUSE
SEARCH
STN-BY
SP
DOLBY
AUTO-OFF
FC
Q22 DTA144ES Q21 DTA144ES Q20 DTA144ES Q19 DTA144ES Q16 DTA144ES Q23 DTA144ES
Q24 DTA144ES
9-2 CH-1 HEADPHONE IN (R)
9-1 CH-2 HEADPHONE IN (R)
10-3 CH-1 AUDIO HEADPHONE (R)
10-2 CH-2 AUDIO HEADPHONE (R)
10-1 AUDIO HEADPHONE (G)
9-3 MONITOR SELECT OUT (R)
9-4 MONITOR SELECT OUT (G)
S18
9-5 CH-1 MONITOR IN (R)
9-6 CH-1 MONITOR IN (G)
9-7 CH-2 MONITER IN (R)
9-8 CH-2 MONITOR IN (G)
R72 22k
R71 22k

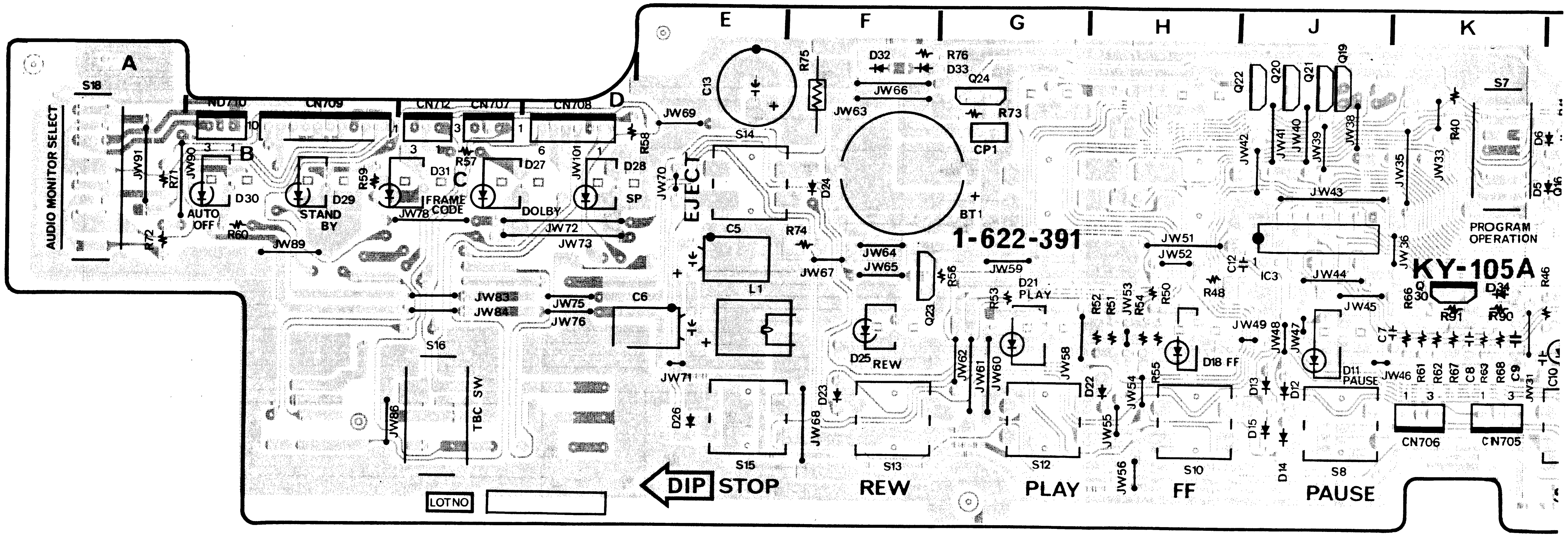

Q11 2SA1175-F
Q13 2SA1175-F
Q10 2SA1175-F
Q14 2SA1175-F
1-8 A-SEG
1-9 B-SEG
1-3 C-SEG
1-12 D-SEG
1-13 E-SEG
1-10 F-SEG
1-11 G-SEG
REG +5V
COM
DIG 1
DIG 2
DIG 3
DIG 4
DIG 5
DIG 6
IC1 M54517P
Q1 DTA144ES
Q2 DTA144ES
Q3 DTA144ES
Q4 DTA144ES
Q5 DTA144ES
STOP
EJECT
REW
FF
PLAY
PAUSE
SEARCH
MARK A
MARK B
RESET
1SS119TD
S7
REPEAT
OFF
REW
S1
CTL
FN
TIMER REC 5-3
TIMER C 5-2
TIMER PLAY 5-1
OFF
IC3 TC4042BP
IC2
REG +5V
11-5 D
11-4 C
11-3 B
11-2 A
11-1 T
11-6 GND
Q30 DTC124ES
D34 1SS119TD
S16 TBC SW
L:TBC ON 7-2 SV-93A 4-2
Q24
FC
D31 TLUG154
REW
FF
PLAY
PAUSE
SEARCH
STN-BY
AUTO-OFF
SP
DOLBY
GL-5HD5
TLUG154
TLUY154
9-2 CH-1 HEADPHONE IN (X)
9-1 CH-2 HEADPHONE IN (X)
10-3 CH-1 AUDIO HEADPHONE (X)
10-2 CH-2 AUDIO HEADPHONE (X)
10-1 AUDIO HEADPHONE (G)
S18
9-3 MONITOR SELECT OUT (X)
9-4 MONITOR SELECT OUT (G)
9-5 CH-1 MONITOR IN (X)
9-6 CH-1 MONITOR IN (G)
9-7 CH-2 MONITER IN (X)
9-8 CH-2 MONITER IN (G)
R72 22k
R71 22k
2-1 REMOTE SIG (X)
2-2 L:REMOTE IN
2-3 GND
REMOTE SIG OUT (X) 6-2 SY-106A 7-2
L:REMOTE OUT 6-3 SY-106A 7-1
GND 6-1 SY-106A 7-3
Q16 TA144ES
Q23 DTA144ES
Q24 DTA144ES
KY-105A
1-622-391-24
VP-9000

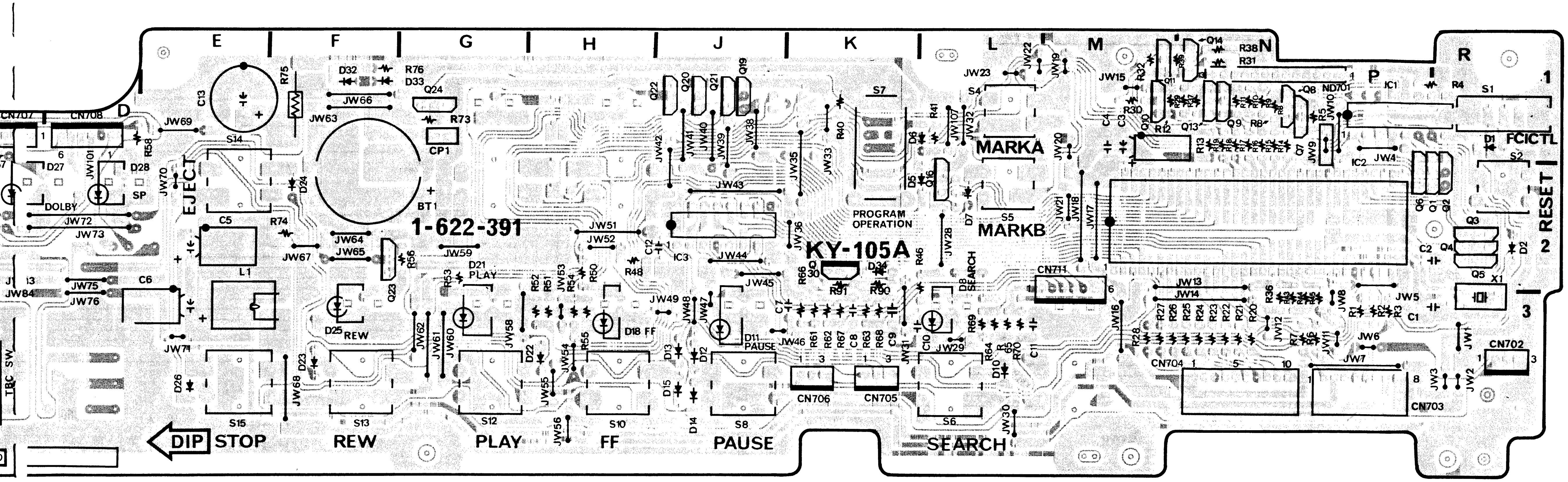
KY-105A: FUNCTION KEY/DISPLAY

UC; S/N 11251 and higher
J; S/N 10151 and higher

KY-105A (1-622-391-24)

BT1	F-2
CN702	R-3
CN703	P-3
CN704	N-3
CN705	K-3
CN706	K-3
CN707	C-1
CN708	D-1
CN709	B-1
CN711	M-3
CN712	C-1
CP1	G-1
D1	R-1
D2	R-2
D5	L-2
D6	L-1
D7	L-2
D8	L-3
D10	L-3
D11	J-3
D12	J-3
D13	J-3
D14	J-3
D15	J-3
D18	H-3
D21	G-3
D22	H-3
D23	F-3
D24	F-2
D25	F-3
D26	E-3
D27	C-2
D28	D-2
D29	B-2
D30	B-2
D31	B-2
D32	F-1
D33	F-1
D34	K-2
IC1	P-1
IC2	N-2
IC3	J-2
ND701	N-1
Q1	R-2
Q2	R-2
Q3	R-2
Q4	R-2
Q5	R-2
Q6	P-2
Q7	N-1
Q8	N-1
Q9	N-1
Q10	M-1
Q11	M-1
Q13	N-1
Q14	N-1
Q16	L-2
Q19	J-1
Q20	J-1
Q21	J-1
Q22	J-1
Q23	F-2
Q24	G-1
Q30	K-2
S1	R-1
S2	R-2
S4	L-1
S5	L-2
S6	L-3
S7	K-1
S8	J-3
S10	H-3
S12	G-3
S13	F-3
S14	E-2
S15	E-3
S16	C-3
S18	A-2
X1	R-3


A
B
C
D
E
F
G
H
J
K
AUDIO MONITOR SELECT
S18
ND710
CN709
CN712
CN707
CN708
JW91
JW90
R71
R72
D30
AUTO OFF
R60
D29
STAND BY
JW89
R59
D31
FRAME CODE
JW78
R57
D27
DOLBY
JW72
JW73
JW101
D28
SP
R58
JW69
JW70
EJECT
S14
C13
R75
D32
D33
R76
JW66
JW63
Q24
R73
CP1
BT1
1-622-391
C5
R74
L1
JW64
JW65
JW67
R56
Q23
JW59
D21
PLAY
R53
JW83
JW84
JW75
JW76
C6
S16
TBC SW
JW86
JW71
D26
S15
STOP
DIP
D23
D24
JW68
D25
REW
S13
JW62
JW61
JW60
JW58
S12
D22
JW55
JW56
R52
R51
JW53
R54
R50
R55
JW54
D18 FF
S10
FF
JW51
JW52
R48
C12
IC3
JW49
JW48
JW47
D13
D12
D15
D14
D11
PAUSE
S8
JW44
JW45
JW46
Q22
Q20
Q21
Q19
JW42
JW41
JW40
JW39
JW38
JW43
JW35
JW33
JW36
R40
S7
D6
D5
PROGRAM OPERATION
KY-105A
R66
Q30
D34
R91
R90
R46
C7
R61
R62
R67
C8
R63
R68
C9
JW31
C10
CN706
CN705
LOT NO


E
F
G
H
J
K
L
M
N
P
R
1
2
3
D
CN707
CN708
JW69
R58
D27
JW101
D28
SP
DOLBY
JW70
EJECT
JW72
JW73
JW84
JW75
JW76
C6
JW74
TBC SW
D26
C13
R75
S14
D24
C5
L1
S15
JW68
D23
R74
JW67
D32
D33
R76
JW66
JW63
BT1
Q24
R73
CP1
1-622-391
JW64
JW65
R56
Q23
D25
REW
S13
JW62
JW61
JW60
JW59
D21
PLAY
R53
S12
JW58
D22
R52
R51
JW53
R54
R50
JW51
JW52
JW55
JW54
R55
D18
FF
S10
JW56
C12
IC3
R48
JW49
Q22
Q20
Q21
Q19
JW42
JW41
JW40
JW39
JW38
JW43
JW44
JW45
JW48
JW47
D13
D12
D15
D14
D11
PAUSE
S8
JW46
R40
JW35
JW33
JW36
S7
PROGRAM
OPERATION
KY-105A
Q30
R91
D34
R90
R66
R61
R62
R67
C8
R63
R68
C9
C7
CN706
CN705
R41
D6
Q16
JW107
JW32
D5
R46
D7
JW28
D8
SEARCH
C10
JW31
JW29
S6
JW30
R69
R64
R65
R70
C11
D10
S4
MARKA
S5
MARKB
JW23
JW22
JW19
JW20
JW21
JW18
JW17
CN711
JW16
C4
C3
Q10
R12
Q11
Q13
R13
JW15
R32
R30
R29
Q14
R38
R31
Q9
R8
Q8
Q7
ND701
IC1
R5
JW10
JW9
JW13
JW14
R36
R27
R26
R25
R24
R23
R22
R21
R20
R28
JW12
R7
JW11
JW8
R1
R2
R3
C1
JW6
JW7
CN704
1
5
10
CN703
8
JW3
JW2
JW1
CN702
IC2
JW4
JW5
R4
S1
D1
FCICTL
S2
RESET
Q6
Q1
Q2
Q3
Q4
Q5
X1
C2
D2
DIP
STOP
REW
PLAY
FF
PAUSE
SEARCH

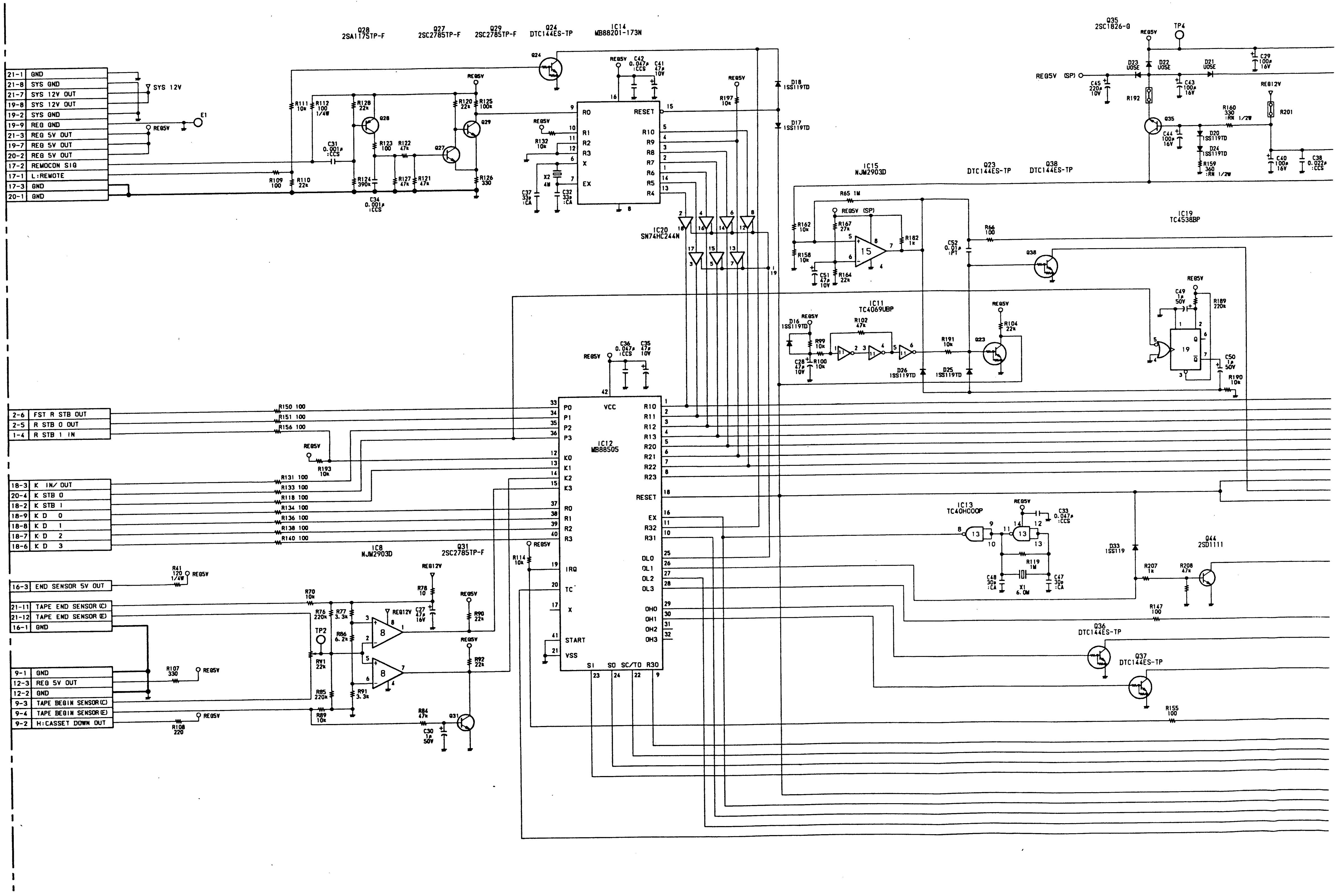
KY-105A

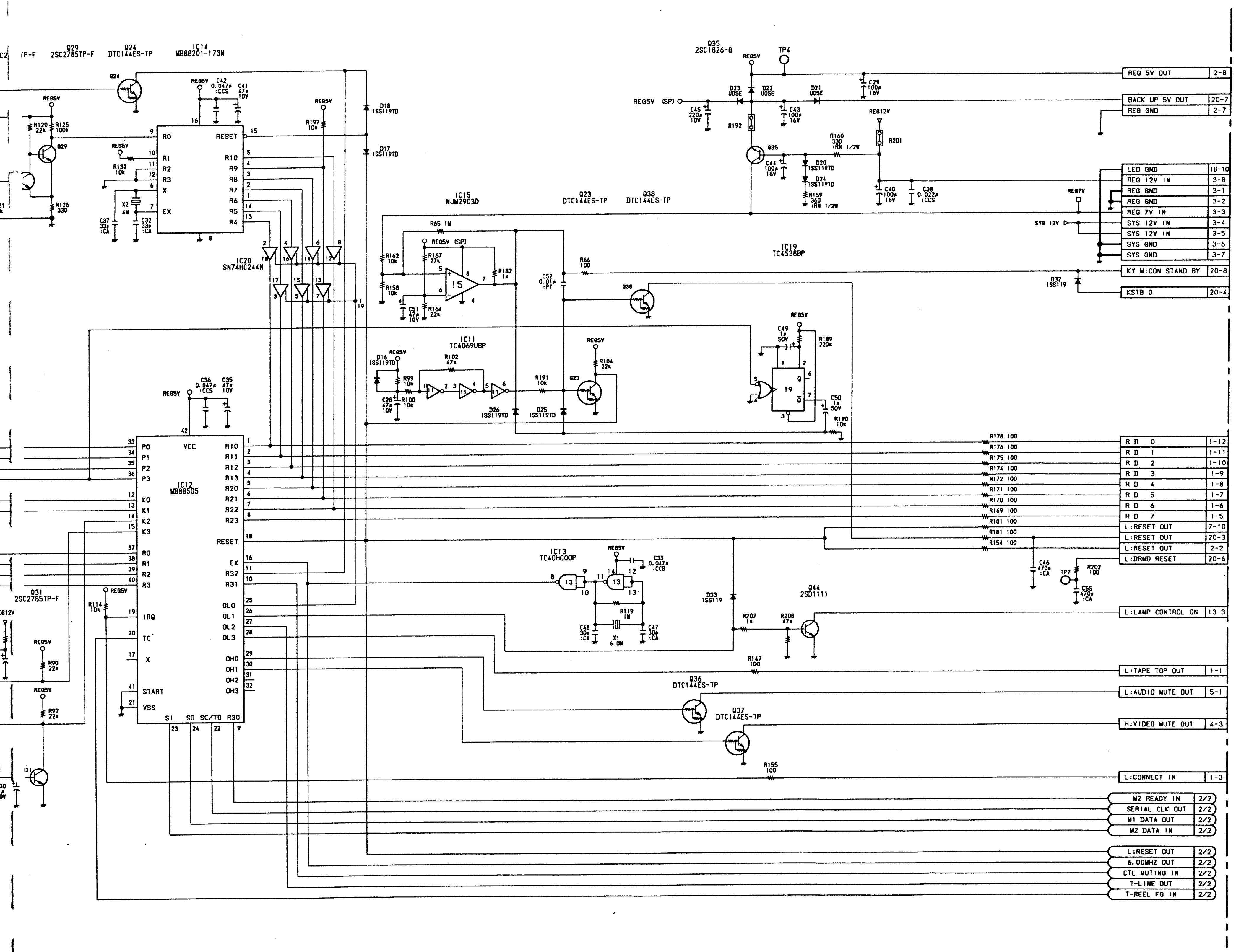
-COMPONENT SIDE-

1-622-391-24
VP-9000

SY-106A(1/2): SYSTEM CONTROL

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050


21-1 GND
21-8 SYS GND
21-7 SYS 12V OUT
19-8 SYS 12V OUT
19-2 SYS GND
19-9 REG GND
21-3 REG 5V OUT
19-7 REG 5V OUT
20-2 REG 5V OUT
17-2 REMOCON SIG
17-1 L:REMOTE
17-3 GND
20-1 GND
SYS 12V
E1
Q28 2SA1175TP-F
Q27 2SC2785TP-F
Q29 2SC2785TP-F
Q24 DTC144ES-TP
IC14 MB88201-173N
IC20 SN74HC244N
IC15 NJM2903D
IC11 TC4069UBP
Q23 DTC144ES-TP
Q38 DTC144ES-TP
IC19 TC4538BP
Q35 2SC1826-Q
TP4
REG5V (SP)
REG12V
2-6 FST R STB OUT
2-5 R STB 0 OUT
1-4 R STB 1 IN
18-3 K IN/OUT
20-4 K STB 0
18-2 K STB 1
18-9 K D 0
18-8 K D 1
18-7 K D 2
18-6 K D 3
IC12 MB88505
IC13 TC40H000P
X1 6.0M
Q44 2SD1111
Q36 DTC144ES-TP
Q37 DTC144ES-TP
16-3 END SENSOR 5V OUT
21-11 TAPE END SENSOR (C)
21-12 TAPE END SENSOR (E)
16-1 GND
IC8 NJM2903D
Q31 2SC2785TP-F
TP2
9-1 GND
12-3 REG 5V OUT
12-2 GND
9-3 TAPE BEGIN SENSOR(C)
9-4 TAPE BEGIN SENSOR(E)
9-2 H:CASSET DOWN OUT

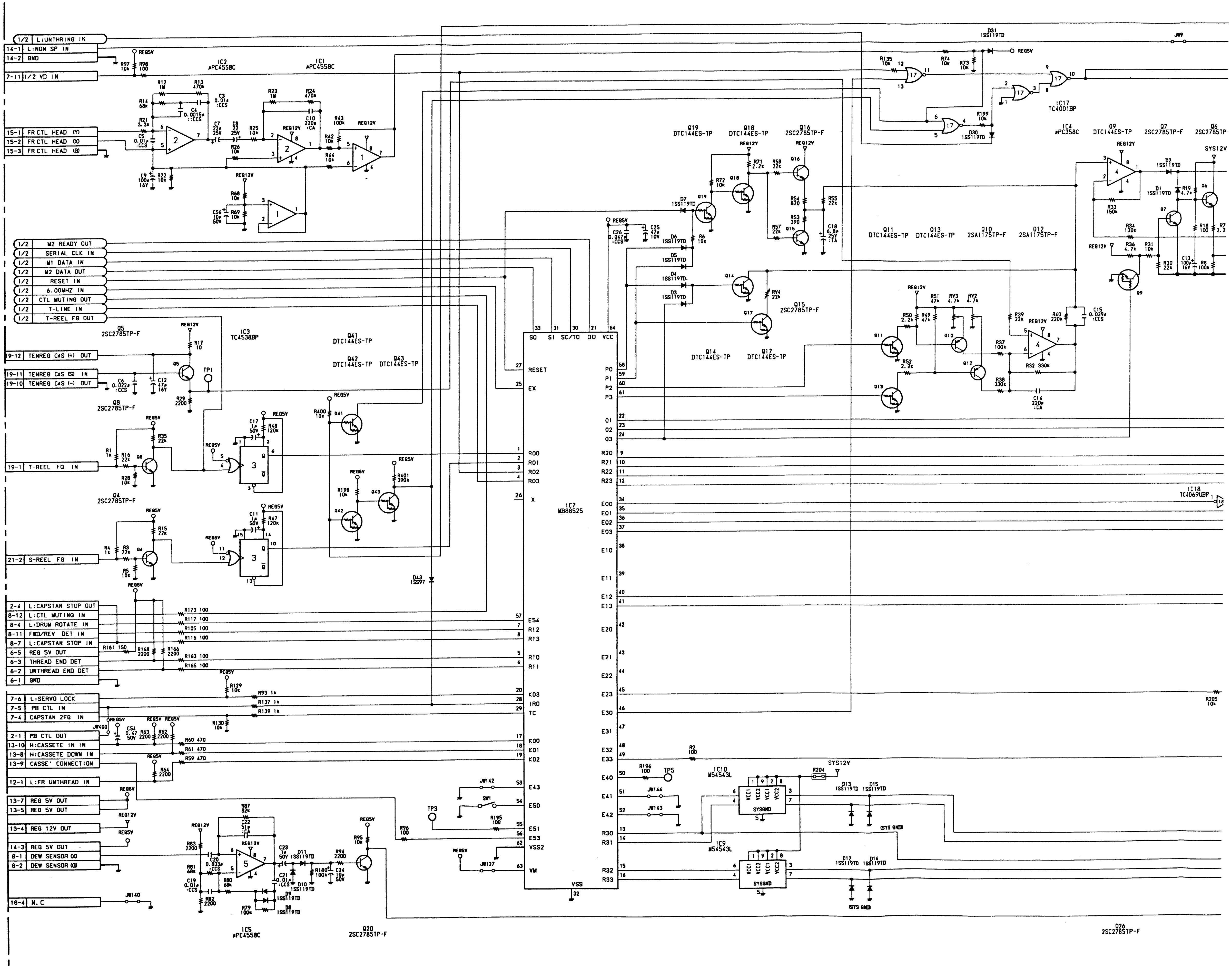

Q29
2SC2785TP-F
Q24
DTC144ES-TP
IC14
MB88201-173N
Q35
2SC1826-Q
TP4
REG5V (SP)
D23 U05E
D22 U05E
D21 U05E
C29 100μ 16V
C45 220μ 10V
C43 100μ 16V
R192
REG12V
R160 330 :RN 1/2W
R201
D20 1SS119TD
D24 1SS119TD
R159 360 :RN 1/2W
C44 100μ 16V
C40 100μ 16V
C38 0.022μ :CCS
REG7V
SYS 12V
D32 1SS119
D18 1SS119TD
D17 1SS119TD
R197 10k
RO
R1
R2
R3
X
EX
RESET
R10
R9
R8
R7
R6
R5
R4
C42 0.047μ :CCS
C41 47μ 10V
R120 22k
R125 100k
R126 330
R132 10k
X2 4M
C37 33p :CA
C32 33p :CA
IC20
SN74HC244N
IC15
NJM2903D
Q23
DTC144ES-TP
Q38
DTC144ES-TP
R65 1M
R162 10k
R167 27k
R182 1k
R158 10k
C51 47μ 10V
R164 22k
C52 0.01μ :PT
R66 100
IC19
TC4538BP
IC11
TC4069UBP
D16 1SS119TD
R99 10k
R102 47k
R100 10k
C28 47μ 10V
D26 1SS119TD
D25 1SS119TD
R191 10k
R104 22k
C49 1μ 50V
R189 220k
C50 1μ 50V
R190 10k
C36 0.047μ :CCS
C35 47μ 10V
IC12
MB88505
P0
P1
P2
P3
K0
K1
K2
K3
R0
R1
R2
R3
IRQ
TC
X
START
VSS
VCC
R10
R11
R12
R13
R20
R21
R22
R23
RESET
EX
R32
R31
OL0
OL1
OL2
OL3
OH0
OH1
OH2
OH3
SI
SO
SC/TO
R30
R178 100
R176 100
R175 100
R174 100
R172 100
R171 100
R170 100
R169 100
R101 100
R181 100
R154 100
C46 470p :CA
TP7
R202 100
C55 470p :CA
IC13
TC40HC00P
C33 0.047μ :CCS
R119 1M
C48 30p :CA
X1 6.0M
C47 30p :CA
D33 1SS119
Q44
2SD1111
R207 1k
R208 47k
R147 100
Q36
DTC144ES-TP
Q37
DTC144ES-TP
R155 100
Q31
2SC2785TP-F
R114 10k
R90 22k
R92 22k
REG5V
REG 5V OUT | 2-8
BACK UP 5V OUT | 20-7
REG GND | 2-7
LED GND | 18-10
REG 12V IN | 3-8
REG GND | 3-1
REG GND | 3-2
REG 7V IN | 3-3
SYS 12V IN | 3-4
SYS 12V IN | 3-5
SYS GND | 3-6
SYS GND | 3-7
KY MICON STAND BY | 20-8
KSTB 0 | 20-4
R D 0 | 1-12
R D 1 | 1-11
R D 2 | 1-10
R D 3 | 1-9
R D 4 | 1-8
R D 5 | 1-7
R D 6 | 1-6
R D 7 | 1-5
L:RESET OUT | 7-10
L:RESET OUT | 20-3
L:RESET OUT | 2-2
L:DRMD RESET | 20-6
L:LAMP CONTROL ON | 13-3
L:TAPE TOP OUT | 1-1
L:AUDIO MUTE OUT | 5-1
H:VIDEO MUTE OUT | 4-3
L:CONNECT IN | 1-3
M2 READY IN | 2/2
SERIAL CLK OUT | 2/2
M1 DATA OUT | 2/2
M2 DATA IN | 2/2
L:RESET OUT | 2/2
6.00MHZ OUT | 2/2
CTL MUTING IN | 2/2
T-LINE OUT | 2/2
T-REEL FG IN | 2/2

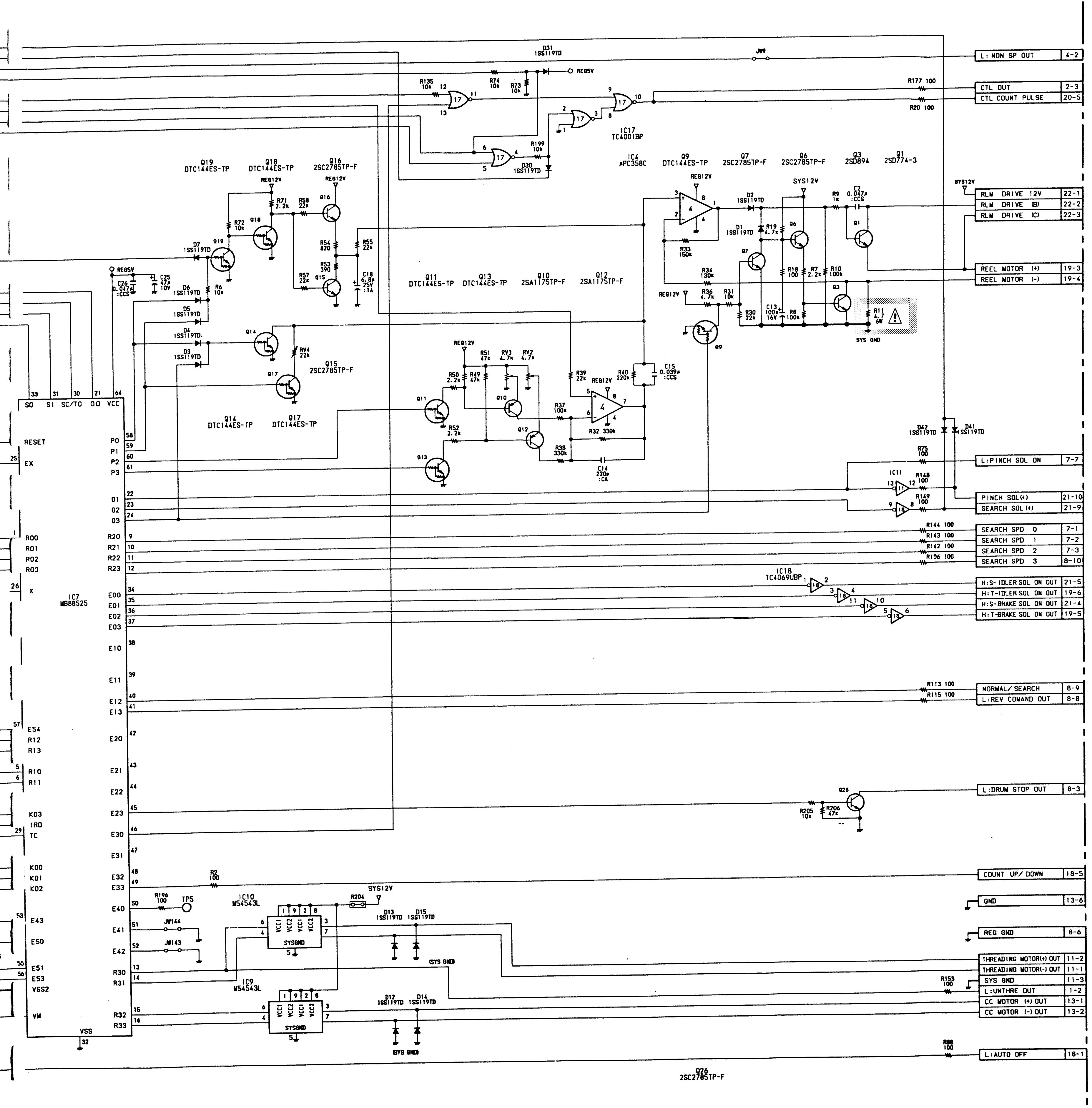
SY-106A (1/2)

1-622-389-21
VP-9000

SY-106A(2/2): SYSTEM CONTROL

UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050


1/2 L:UNTHRING IN
14-1 L:NON SP IN
14-2 GND
7-11 1/2 VD IN
15-1 FR CTL HEAD (Y)
15-2 FR CTL HEAD (O)
15-3 FR CTL HEAD (G)
1/2 M2 READY OUT
1/2 SERIAL CLK IN
1/2 M1 DATA IN
1/2 M2 DATA OUT
1/2 RESET IN
1/2 6.00MHZ IN
1/2 CTL MUTING OUT
1/2 T-LINE IN
1/2 T-REEL FG OUT
19-12 TENREG C&S (+) OUT
19-11 TENREG C&S (S) IN
19-10 TENREG C&S (-) OUT
19-1 T-REEL FG IN
21-2 S-REEL FG IN
2-4 L:CAPSTAN STOP OUT
8-12 L:CTL MUTING IN
8-4 L:DRUM ROTATE IN
8-11 FWD/REV DET IN
8-7 L:CAPSTAN STOP IN
6-5 REG 5V OUT
6-3 THREAD END DET
6-2 UNTHREAD END DET
6-1 GND
7-6 L:SERVO LOCK
7-5 PB CTL IN
7-4 CAPSTAN 2FG IN
2-1 PB CTL OUT
13-10 H:CASSETE IN IN
13-8 H:CASSETE DOWN IN
13-9 CASSE' CONNECTION
12-1 L:FR UNTHREAD IN
13-7 REG 5V OUT
13-5 REG 5V OUT
13-4 REG 12V OUT
14-3 REG 5V OUT
8-1 DEW SENSOR (O)
8-2 DEW SENSOR (G)
18-4 N.C
IC2 μPC4558C
IC1 μPC4558C
IC3 TC4538BP
IC5 μPC4558C
IC7 MB88525
IC17 TC4001BP
IC4 μPC358C
IC18 TC4069UBP
IC10 M54543L
IC9 M54543L
Q5 2SC2785TP-F
Q8 2SC2785TP-F
Q4 2SC2785TP-F
Q41 DTC144ES-TP
Q42 DTC144ES-TP
Q43 DTC144ES-TP
Q19 DTC144ES-TP
Q18 DTC144ES-TP
Q16 2SC2785TP-F
Q14 DTC144ES-TP
Q17 DTC144ES-TP
Q15 2SC2785TP-F
Q11 DTC144ES-TP
Q13 DTC144ES-TP
Q10 2SA1175TP-F
Q12 2SA1175TP-F
Q9 DTC144ES-TP
Q7 2SC2785TP-F
Q6 2SC2785TP
Q20 2SC2785TP-F
Q26 2SC2785TP-F
D43 1SS97
TP1
TP3
TP5
SW1
REG5V
REG12V
SYS12V
SYS GND
SO SI SC/TO OO VCC
RESET
EX
X
VSS
VSS2
VM
P0 P1 P2 P3
O1 O2 O3
R00 R01 R02 R03
R20 R21 R22 R23
E00 E01 E02 E03 E10 E11 E12 E13 E20 E21 E22 E23 E30 E31 E32 E33 E40 E41 E42
R30 R31 R32 R33
E54 R12 R13 R10 R11
K03 IRO TC
K00 K01 K02
E43 E50 E51 E53
JW140 JW142 JW143 JW144 JW127 JW400 JW9


L: NON SP OUT 4-2
CTL OUT 2-3
CTL COUNT PULSE 20-5
RLM DRIVE 12V 22-1
RLM DRIVE (B) 22-2
RLM DRIVE (C) 22-3
REEL MOTOR (+) 19-3
REEL MOTOR (-) 19-4
L:PINCH SOL ON 7-7
PINCH SOL(+) 21-10
SEARCH SOL (+) 21-9
SEARCH SPD 0 7-1
SEARCH SPD 1 7-2
SEARCH SPD 2 7-3
SEARCH SPD 3 8-10
H:S-IDLER SOL ON OUT 21-5
H:T-IDLER SOL ON OUT 19-6
H:S-BRAKE SOL ON OUT 21-4
H:T-BRAKE SOL ON OUT 19-5
NORMAL/SEARCH 8-9
L:REV COMAND OUT 8-8
L:DRUM STOP OUT 8-3
COUNT UP/DOWN 18-5
GND 13-6
REG GND 8-6
THREADING MOTOR(+) OUT 11-2
THREADING MOTOR(-) OUT 11-1
SYS GND 11-3
L:UNTHRE OUT 1-2
CC MOTOR (+) OUT 13-1
CC MOTOR (-) OUT 13-2
L:AUTO OFF 18-1
IC7 MB88525
IC17 TC4001BP
IC4 μPC358C
IC18 TC4069UBP
IC10 M54543L
IC9 M54543L
Q19 DTC144ES-TP
Q18 DTC144ES-TP
Q16 2SC2785TP-F
Q9 DTC144ES-TP
Q7 2SC2785TP-F
Q6 2SC2785TP-F
Q3 2SD894
Q1 2SD774-3
Q11 DTC144ES-TP
Q13 DTC144ES-TP
Q10 2SA1175TP-F
Q12 2SA1175TP-F
Q14 DTC144ES-TP
Q17 DTC144ES-TP
Q15 2SC2785TP-F
Q26 2SC2785TP-F
REG5V
REG12V
SYS12V
SYS GND

注意１：⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE;

The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.

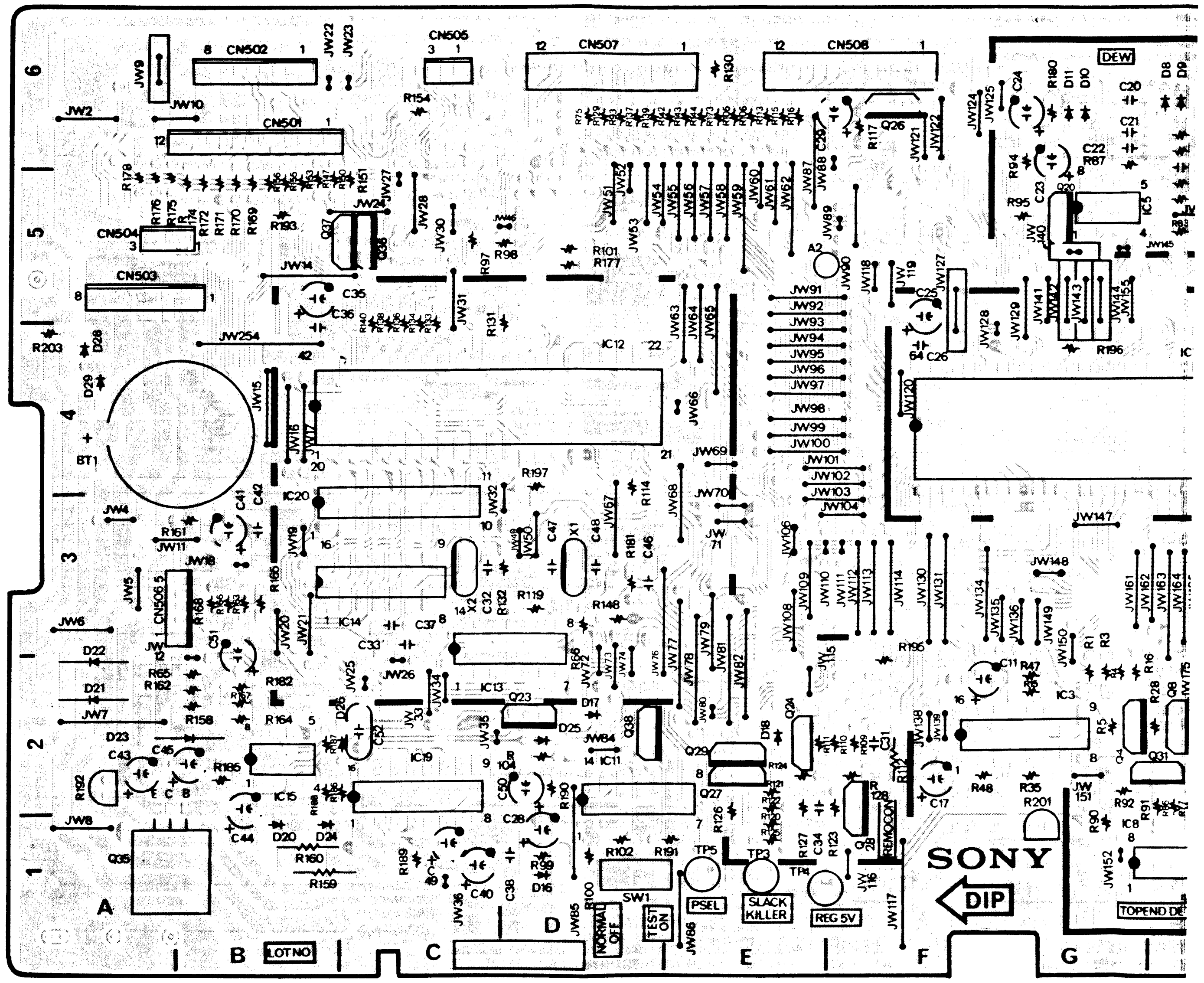
SY-106A (2/2)
1-622-389-21
VP-9000

SY-106A: SYSTEM CONTROL

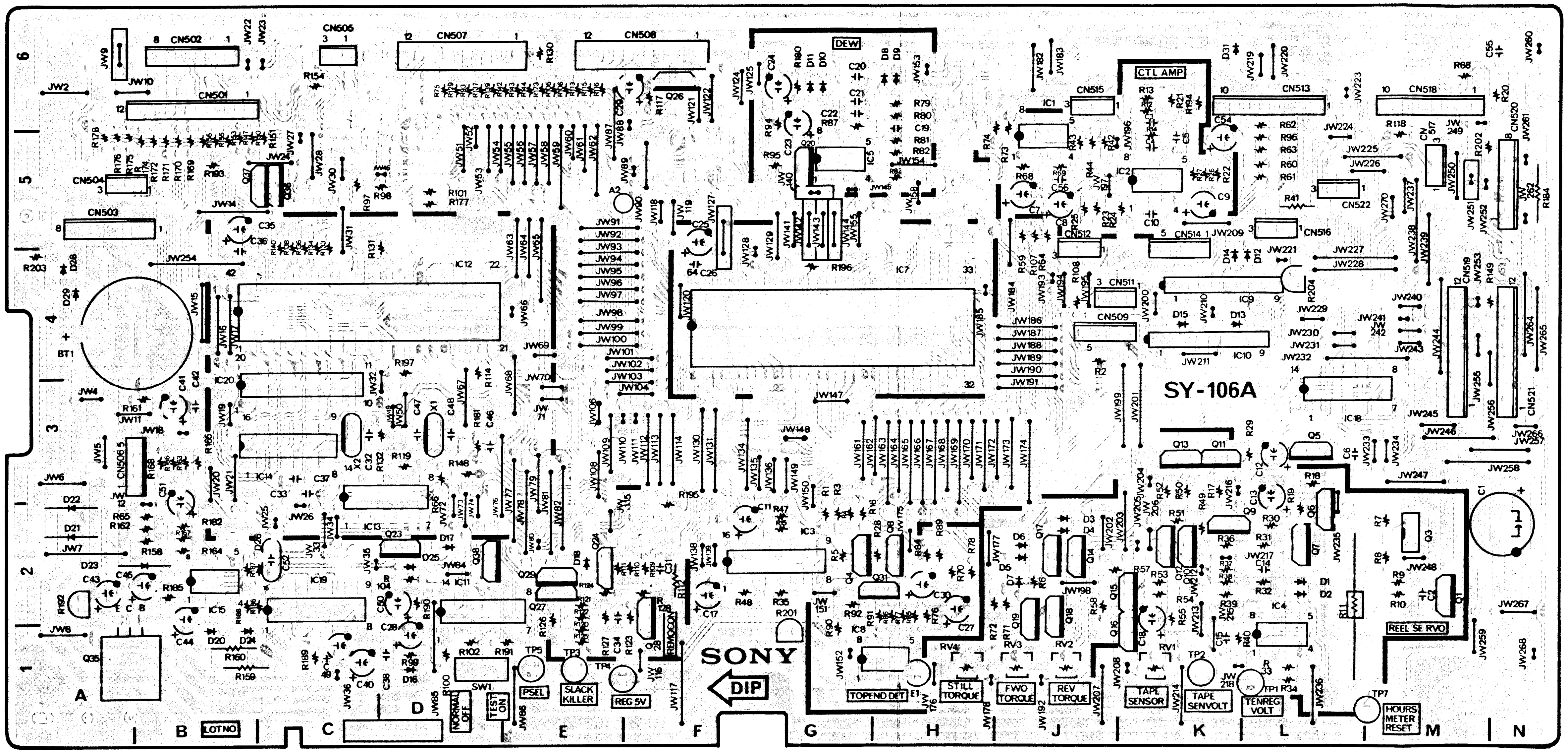
UC; S/N 10001 thru 10250
J; S/N 10001 thru 10050

SY-106A (1-622-389-21)

CN501	B-1
CN502	B-1
CN503	A-2
CN504	A-2
CN505	C-1
CN506	B-4
CN507	D-1
CN508	E-1
CN509	J-3
CN511	J-3
CN512	J-3
CN513	L-1
CN514	K-3
CN515	J-1
CN516	L-2
CN517	M-2
CN518	M-1
CN519	M-3
CN520	N-2
CN521	N-3
CN522	L-2
D1	L-5
D2	L-5
D3	J-5
D4	J-5
D5	J-5
D6	J-5
D7	J-5
D8	H-1
D9	H-1
D10	G-1
D11	G-1
D12	L-3
D13	K-3
D14	K-3
D15	K-3
D16	D-6
D17	D-5
D18	E-5
D20	B-6
D21	A-5
D22	A-5
D23	B-5
D24	B-6
D25	D-5
D26	C-5
D31	K-1
D32	N-2
D33	E-3
D43	E-4
E1	H-6
IC1	J-2
IC2	K-2
IC3	G-5
IC4	L-6
IC5	G-2
IC7	G-3
IC8	H-6
IC9	K-3
IC10	K-3
IC11	D-5
IC12	C-3
IC13	D-4
IC14	C-4
IC15	B-5
IC17	H-1
IC18	L-4
IC19	C-5
IC20	C-4
Q1	M-5
Q3	M-5
Q4	G-5
Q5	L-4
Q6	L-5
Q7	L-5
Q8	H-5
Q9	K-5
Q10	K-5
Q11	K-4
Q12	K-5
Q13	K-4
Q14	J-5
Q15	K-5
Q16	K-6
Q17	J-5
Q18	J-5
Q19	J-5
Q20	G-2
Q23	D-5
Q24	E-5
Q26	F-1
Q27	E-5
Q28	F-5
Q29	E-5
Q31	H-5
Q35	A-6
Q36	C-2
Q37	C-2
Q38	D-5
Q41	F-5
Q42	F-5
Q43	F-5
Q44	B-3
RV1	K-6
RV2	J-6
RV3	J-6
RV4	H-6
SW1	D-6
TP1	L-6
TP2	K-6
TP3	E-6
TP4	F-6
TP5	E-6
TP7	M-6
X1	D-4
X2	C-4


CN502
CN501
CN503
CN504
CN505
CN506
CN507
CN508
IC12
IC20
IC14
IC13
IC19
IC15
IC11
IC5
IC3
BT1
X1
SW1
TP3
TP4
TP5
PSEL
SLACK KILLER
REG 5V
TEST ON
NORMAL OFF
LOTNO
SONY
DIP
DEW
TOPEND DE
1
2
3
4
5
6
A
B
C
D
E
F
G

''4	H-6
.V1	D-6
TP1	L-6
'2	K-6
'3	E-6
TP4	F-6
TP5	E-6
'7	M-6
X1	D-4
X2	C-4


DEW
CTL AMP
SY-106A
SONY
DIP
TOPEND DET
STILL TORQUE
FWO TORQUE
REV TORQUE
TAPE SENSOR
TAPE SENVOLT
TENREG VOLT
HOURS METER RESET
REEL SERVO
PSEL
SLACK KILLER
REG 5V
REMOCON
NORMAL OFF
TEST ON
LOT NO
BT1
IC7
CN501
CN502
CN503
CN507
CN508
CN513
CN518
A
B
C
D
E
F
G
H
J
K
L
M
N
1
2
3
4
5
6

SY-106A

-COMPONENT SIDE-

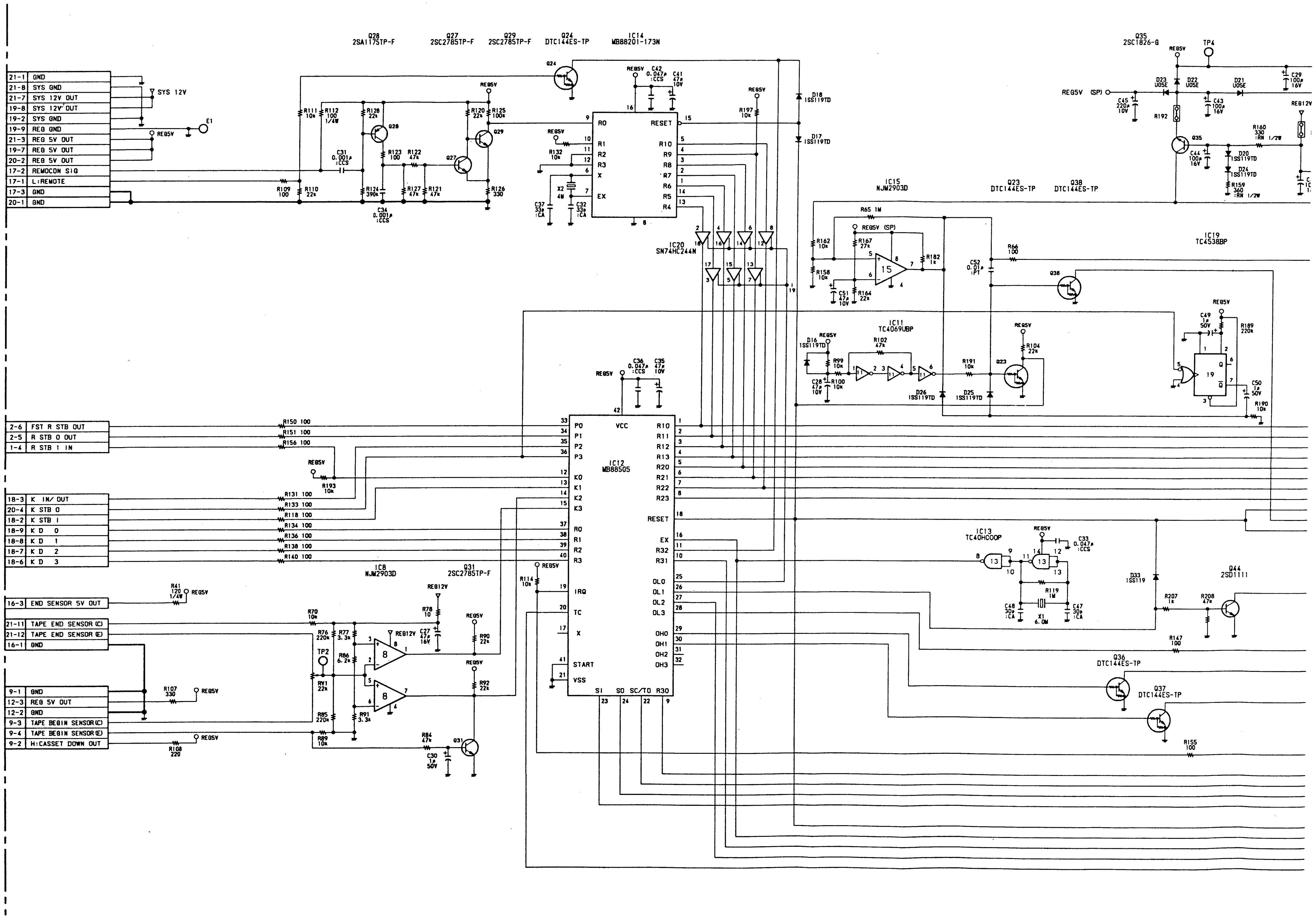
1-622-389-21

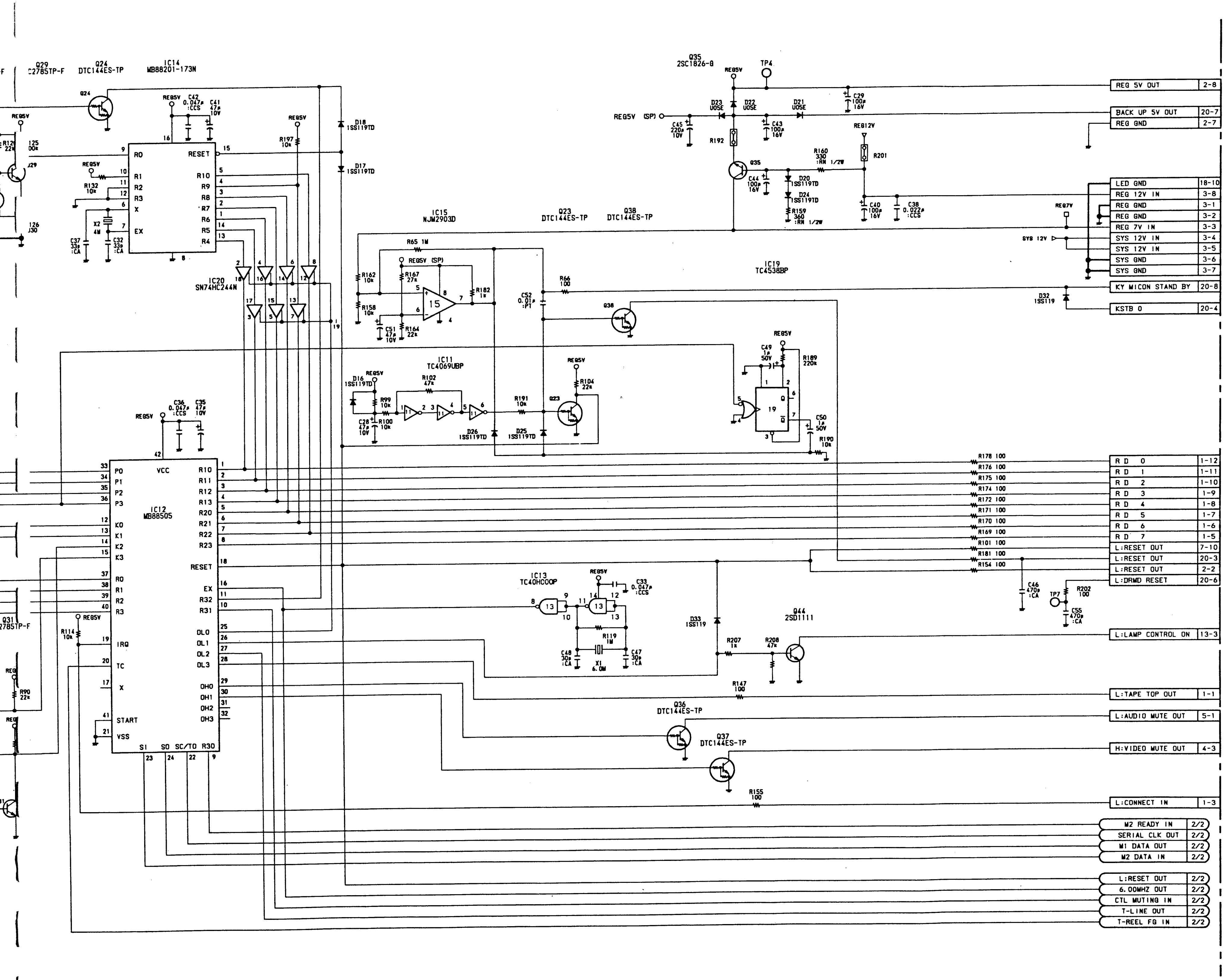
VP-9000

SY-106A(1/2): SYSTEM CONTROL

UC; S/N 10251 thru 11250

J; S/N 10051 thru 10150

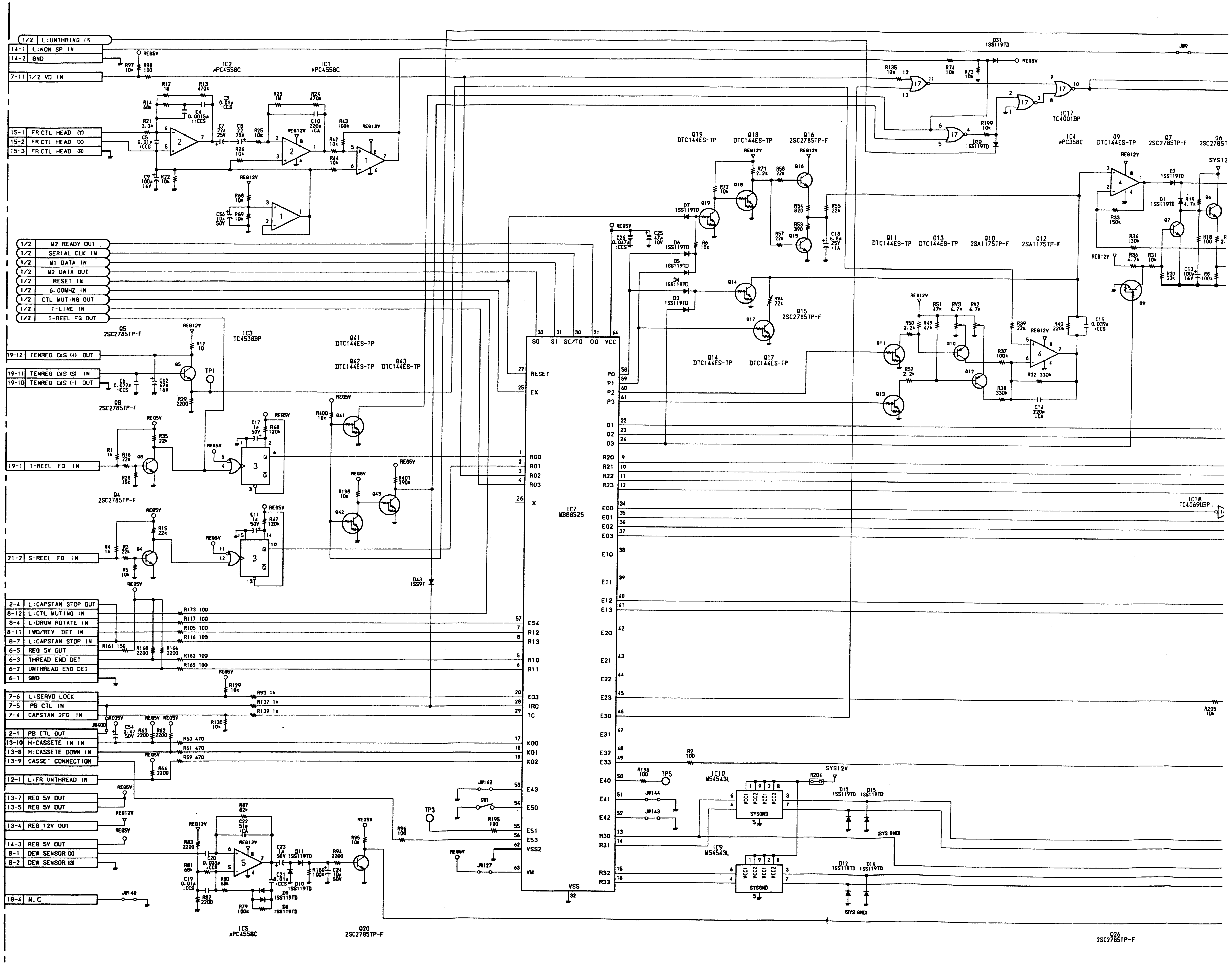

21-1 GND
21-8 SYS GND
21-7 SYS 12V OUT
19-8 SYS 12V OUT
19-2 SYS GND
19-9 REG GND
21-3 REG 5V OUT
19-7 REG 5V OUT
20-2 REG 5V OUT
17-2 REMOCON SIG
17-1 L:REMOTE
17-3 GND
20-1 GND
SYS 12V
E1
Q28 2SA1175TP-F
Q27 2SC2785TP-F
Q29 2SC2785TP-F
Q24 DTC144ES-TP
IC14 MB88201-173N
IC20 SN74HC244N
D18 1SS119TD
D17 1SS119TD
IC15 NJM2903D
Q23 DTC144ES-TP
Q38 DTC144ES-TP
Q35 2SC1826-Q
TP4
IC19 TC4538BP
IC11 TC4069UBP
2-6 FST R STB OUT
2-5 R STB 0 OUT
1-4 R STB 1 IN
18-3 K IN/OUT
20-4 K STB 0
18-2 K STB 1
18-9 K D 0
18-8 K D 1
18-7 K D 2
18-6 K D 3
IC12 MB8850S
16-3 END SENSOR 5V OUT
21-11 TAPE END SENSOR (C)
21-12 TAPE END SENSOR (E)
16-1 GND
9-1 GND
12-3 REG 5V OUT
12-2 GND
9-3 TAPE BEGIN SENSOR (C)
9-4 TAPE BEGIN SENSOR (E)
9-2 H:CASSET DOWN OUT
IC8 NJM2903D
Q31 2SC2785TP-F
TP2
IC13 TC40HC00P
X1 6.0M
D33 1SS119
Q44 2SD1111
Q36 DTC144ES-TP
Q37 DTC144ES-TP
REG5V
REG12V

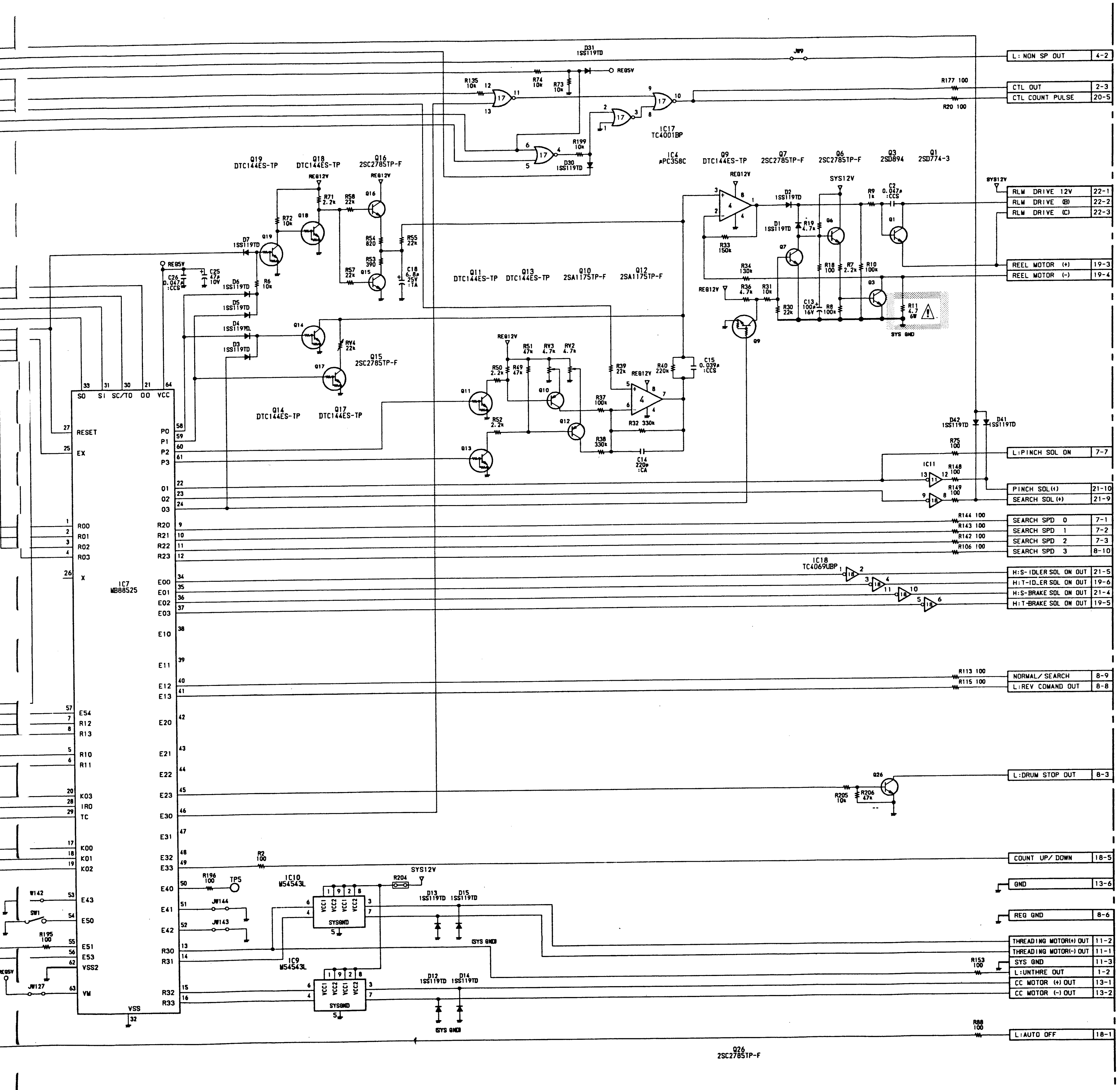

Q29
C2785TP-F
Q24
DTC144ES-TP
IC14
MB88201-173N
Q35
2SC1826-Q
TP4
REG5V
IC15
NJM2903D
Q23
DTC144ES-TP
Q38
DTC144ES-TP
IC19
TC4538BP
IC20
SN74HC244N
IC11
TC4069UBP
IC12
MB88505
IC13
TC40HC00P
Q44
2SD1111
Q36
DTC144ES-TP
Q37
DTC144ES-TP
REG 5V OUT 2-8
BACK UP 5V OUT 20-7
REG GND 2-7
LED GND 18-10
REG 12V IN 3-8
REG GND 3-1
REG GND 3-2
REG 7V IN 3-3
SYS 12V IN 3-4
SYS 12V IN 3-5
SYS GND 3-6
SYS GND 3-7
KY MICON STAND BY 20-8
KSTB 0 20-4
R D 0 1-12
R D 1 1-11
R D 2 1-10
R D 3 1-9
R D 4 1-8
R D 5 1-7
R D 6 1-6
R D 7 1-5
L:RESET OUT 7-10
L:RESET OUT 20-3
L:RESET OUT 2-2
L:DRMD RESET 20-6
L:LAMP CONTROL ON 13-3
L:TAPE TOP OUT 1-1
L:AUDIO MUTE OUT 5-1
H:VIDEO MUTE OUT 4-3
L:CONNECT IN 1-3
M2 READY IN 2/2
SERIAL CLK OUT 2/2
M1 DATA OUT 2/2
M2 DATA IN 2/2
L:RESET OUT 2/2
6.00MHZ OUT 2/2
CTL MUTING IN 2/2
T-LINE OUT 2/2
T-REEL FG IN 2/2

SY-106A (1/2)
1-622-389-22
VP-9000

SY-106A(2/2): SYSTEM CONTROL

UC; S/N 10251 thru 11250
J; S/N 10051 thru 10150


1/2 L:UNTHRING IN
14-1 L:NON SP IN
14-2 GND
7-11 1/2 VD IN
15-1 FR CTL HEAD (Y)
15-2 FR CTL HEAD (X)
15-3 FR CTL HEAD (G)
1/2 M2 READY OUT
1/2 SERIAL CLK IN
1/2 M1 DATA IN
1/2 M2 DATA OUT
1/2 RESET IN
1/2 6.00MHZ IN
1/2 CTL MUTING OUT
1/2 T-LINE IN
1/2 T-REEL FG OUT
19-12 TENREG C&S (+) OUT
19-11 TENREG C&S (S) IN
19-10 TENREG C&S (-) OUT
19-1 T-REEL FG IN
21-2 S-REEL FG IN
2-4 L:CAPSTAN STOP OUT
8-12 L:CTL MUTING IN
8-4 L:DRUM ROTATE IN
8-11 FWD/REV DET IN
8-7 L:CAPSTAN STOP IN
6-5 REG 5V OUT
6-3 THREAD END DET
6-2 UNTHREAD END DET
6-1 GND
7-6 L:SERVO LOCK
7-5 PB CTL IN
7-4 CAPSTAN 2FG IN
2-1 PB CTL OUT
13-10 H:CASSETE IN IN
13-8 H:CASSETE DOWN IN
13-9 CASSE' CONNECTION
12-1 L:FR UNTHREAD IN
13-7 REG 5V OUT
13-5 REG 5V OUT
13-4 REG 12V OUT
14-3 REG 5V OUT
8-1 DEW SENSOR (X)
8-2 DEW SENSOR (G)
18-4 N.C
IC1 μPC4558C
IC2 μPC4558C
IC3 TC4538BP
IC4 μPC358C
IC5 μPC4558C
IC7 MB88525
IC9 M54543L
IC10 M54543L
IC17 TC4001BP
IC18 TC4069UBP
Q5 2SC2785TP-F
Q8 2SC2785TP-F
Q4 2SC2785TP-F
Q41 DTC144ES-TP
Q42 DTC144ES-TP
Q43 DTC144ES-TP
Q19 DTC144ES-TP
Q18 DTC144ES-TP
Q16 2SC2785TP-F
Q14 DTC144ES-TP
Q17 DTC144ES-TP
Q15 2SC2785TP-F
Q11 DTC144ES-TP
Q13 DTC144ES-TP
Q10 2SA1175TP-F
Q12 2SA1175TP-F
Q9 DTC144ES-TP
Q7 2SC2785TP-F
Q20 2SC2785TP-F
Q26 2SC2785TP-F
REG5V
REG12V
SYS12V
SYS GND
TP1
TP3
TP5
SW1
RESET
EX
X
VSS
VSS2
VM
VCC
SO SI SC/TO OO


IC7 MB88525
IC17 TC4001BP
IC4 μPC358C
IC18 TC4069UBP
IC11
IC10 M5543L
IC9 M5543L
Q19 DTC144ES-TP
Q18 DTC144ES-TP
Q16 2SC2785TP-F
Q15 2SC2785TP-F
Q14 DTC144ES-TP
Q17 DTC144ES-TP
Q11 DTC144ES-TP
Q13 DTC144ES-TP
Q10 2SA1175TP-F
Q12 2SA1175TP-F
Q9 DTC144ES-TP
Q7 2SC2785TP-F
Q6 2SC2785TP-F
Q3 2SD894
Q1 2SD774-3
Q26 2SC2785TP-F
D31 1SS119TD
D30 1SS119TD
REG5V
REG12V
SYS12V
SYS GND
L: NON SP OUT 4-2
CTL OUT 2-3
CTL COUNT PULSE 20-5
RLM DRIVE 12V 22-1
RLM DRIVE (B) 22-2
RLM DRIVE (C) 22-3
REEL MOTOR (+) 19-3
REEL MOTOR (-) 19-4
L:PINCH SOL ON 7-7
PINCH SOL(+) 21-10
SEARCH SOL(+) 21-9
SEARCH SPD 0 7-1
SEARCH SPD 1 7-2
SEARCH SPD 2 7-3
SEARCH SPD 3 8-10
H:S-IDLER SOL ON OUT 21-5
H:T-IDLER SOL ON OUT 19-6
H:S-BRAKE SOL ON OUT 21-4
H:T-BRAKE SOL ON OUT 19-5
NORMAL/SEARCH 8-9
L:REV COMAND OUT 8-8
L:DRUM STOP OUT 8-3
COUNT UP/DOWN 18-5
GND 13-6
REG GND 8-6
THREADING MOTOR(+) OUT 11-2
THREADING MOTOR(-) OUT 11-1
SYS GND 11-3
L:UNTHRE OUT 1-2
CC MOTOR (+) OUT 13-1
CC MOTOR (-) OUT 13-2
L:AUTO OFF 18-1

注意１：⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE;

The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.

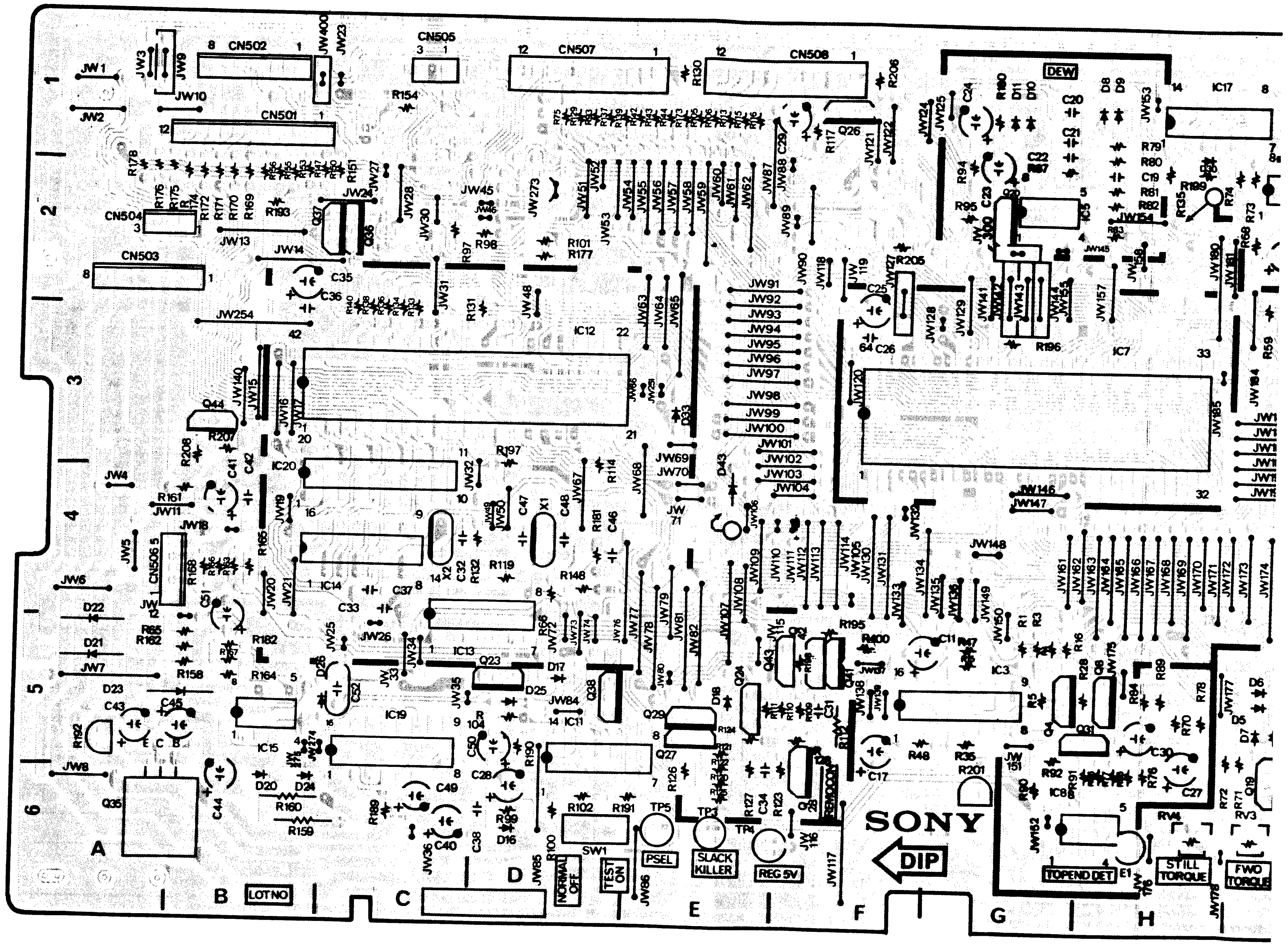
SY-106A (2/2)
1-622-389-22
VP-9000

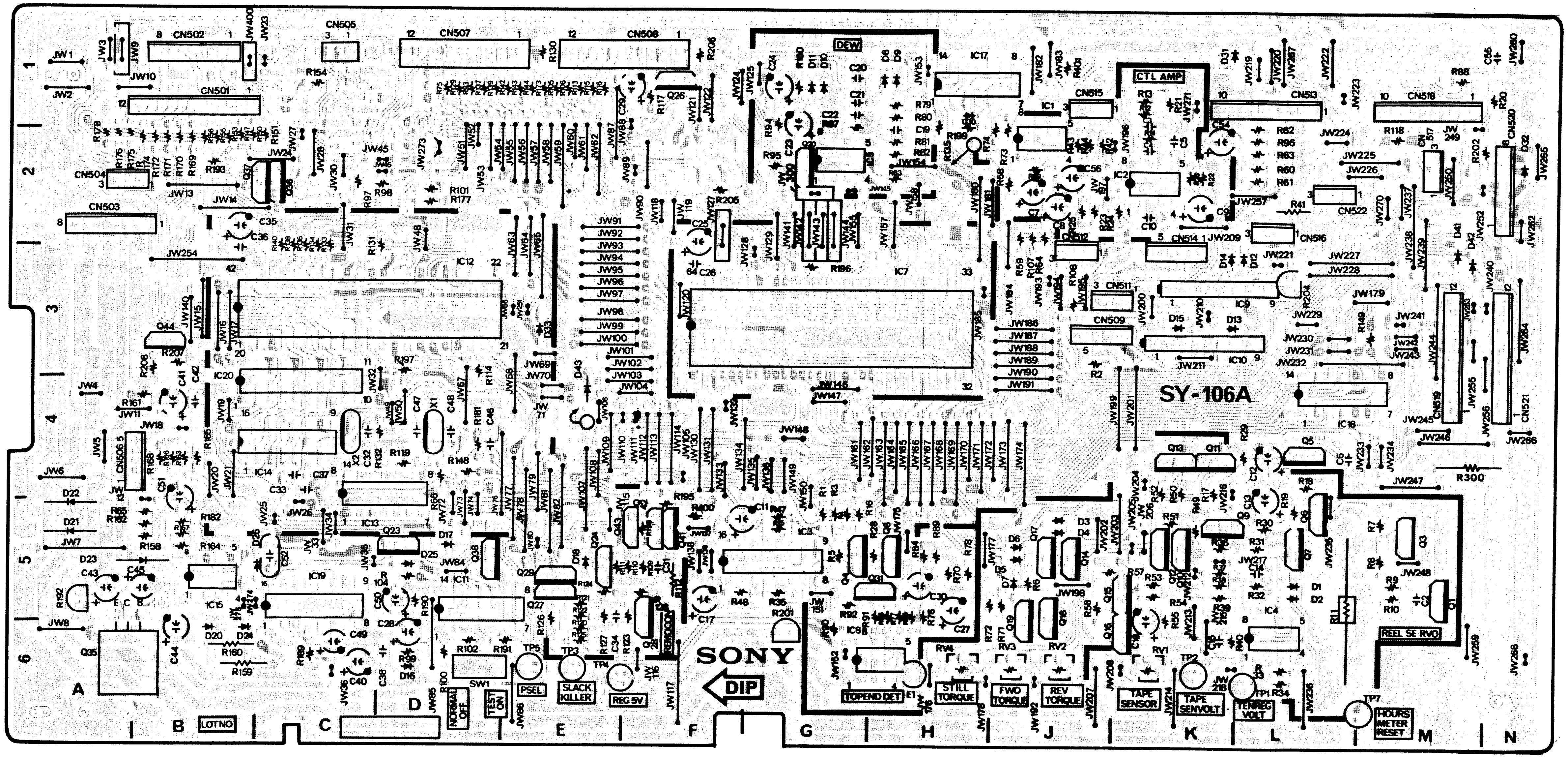
SY-106A : SYSTEM CONTROL

UC; S/N 10251 thru 11250
J; S/N 10051 thru 10150

SY-106A (1-622-389-22)

CN501	B-1
CN502	B-1
CN503	A-2
CN504	A-2
CN505	C-1
CN506	B-4
CN507	D-1
CN508	E-1
CN509	J-3
CN511	J-3
CN512	J-3
CN513	L-1
CN514	K-3
CN515	J-1
CN516	L-2
CN517	M-2
CN518	M-1
CN519	M-3
CN520	N-2
CN521	N-3
CN522	L-2
D1	L-5
D2	L-5
D3	J-5
D4	J-5
D5	J-5
D6	J-5
D7	J-5
D8	H-1
D9	H-1
D10	G-1
D11	G-1
D12	L-3
D13	K-3
D14	K-3
D15	K-3
D16	D-6
D17	D-5
D18	E-5
D20	B-6
D21	A-5
D22	A-5
D23	B-5
D24	B-6
D25	D-5
D26	C-5
D31	K-1
D32	N-2
D33	E-3
D43	E-4
E1	H-6
IC1	J-2
IC2	K-2
IC3	G-5
IC4	L-6
IC5	G-2
IC7	G-3
IC8	H-6
IC9	K-3
IC10	K-3
IC11	D-5
IC12	C-3
IC13	D-4
IC14	C-4
IC15	B-5
IC17	H-1
IC18	L-4
IC19	C-5
IC20	C-4
Q1	M-5
Q3	M-5
Q4	G-5
Q5	L-4
Q6	L-5
Q7	L-5
Q8	H-5
Q9	K-5
Q10	K-5
Q11	K-4
Q12	K-5
Q13	K-4
Q14	J-5
Q15	K-5
Q16	K-6
Q17	J-5
Q18	J-5
Q19	J-5
Q20	G-2
Q23	D-5
Q24	E-5
Q26	F-1
Q27	E-5
Q28	F-5
Q29	E-5
Q31	H-5
Q35	A-6
Q36	C-2
Q37	C-2
Q38	D-5
Q41	F-5
Q42	F-5
Q43	F-5
Q44	B-3
RV1	K-6
RV2	J-6
RV3	J-6
RV4	H-6
SW1	D-6
TP1	L-6
TP2	K-6
TP3	E-6
TP4	F-6
TP5	E-6
TP7	M-6
X1	D-4
X2	C-4

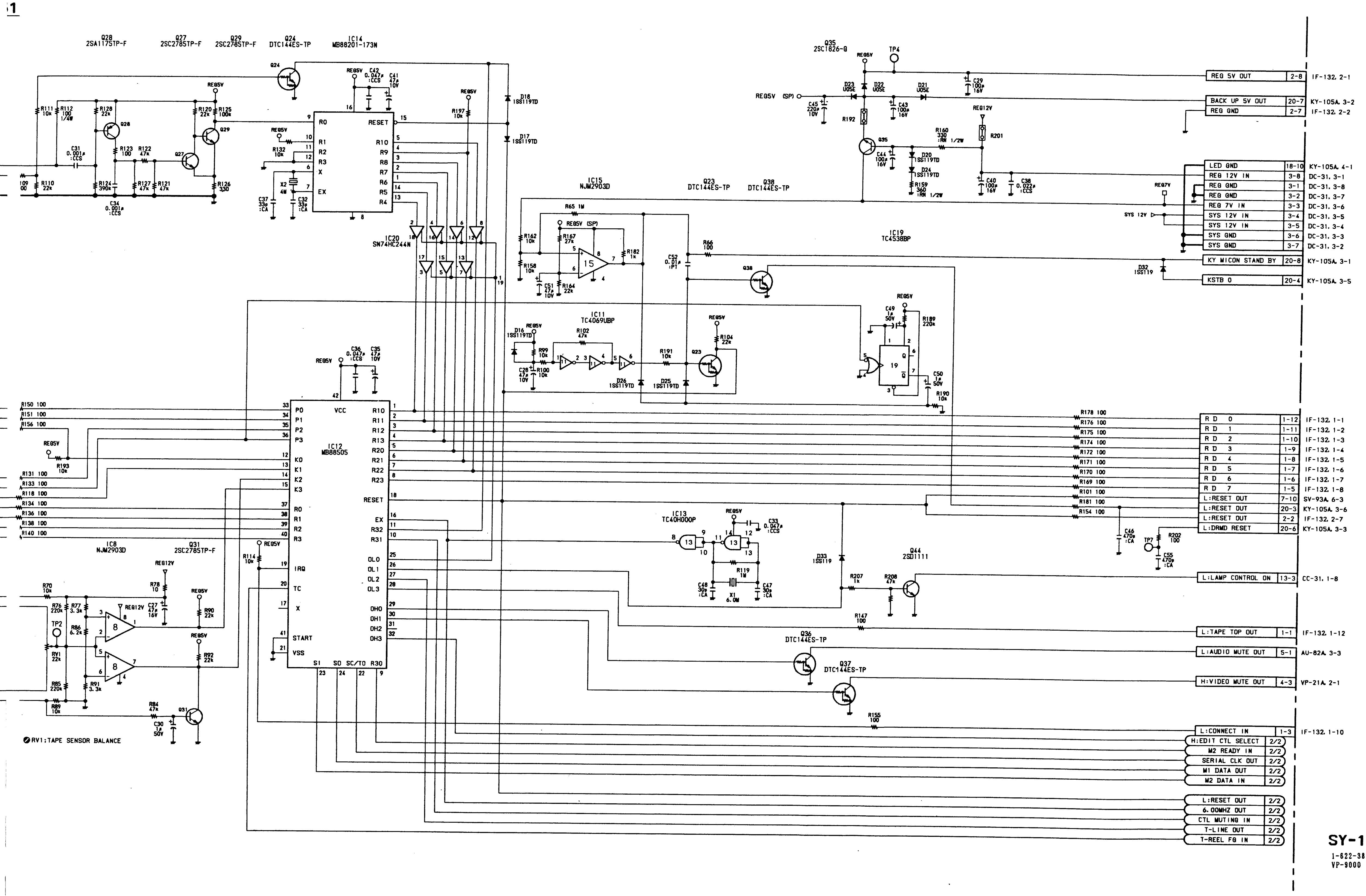

CN502
CN501
CN503
CN504
CN505
CN506
CN507
CN508
IC7
IC12
IC17
IC20
DEW
SONY
DIP
LOTNO
NORMAL OFF
TEST ON
PSEL
SLACK KILLER
REG 5V
TOPEND DET
STILL TORQUE
FWD TORQUE
A
B
C
D
E
F
G
H
1
2
3
4
5
6


CN502
CN505
CN507
CN508
CN501
CN503
CN504
CN506
CN509
CN511
CN512
CN513
CN514
CN515
CN516
CN517
CN518
CN519
CN520
CN521
CN522
IC1
IC2
IC3
IC4
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC14
IC15
IC17
IC18
IC19
IC20
DEW
CTL AMP
SY-106A
SONY
DIP
TOPEND DET
STILL TORQUE
FWD TORQUE
REV TORQUE
TAPE SENSOR
TAPE SENVOLT
TENREG VOLT
HOURS METER RESET
REEL SE RVO
PSEL
SLACK KILLER
REG 5V
NORMAL OFF
TEST ON
SW1
LOTNO
TP1
TP2
TP3
TP4
TP5
TP7
RV1
RV2
RV3
RV4
R300
A
B
C
D
E
F
G
H
J
K
L
M
N
1
2
3
4
5
6

SY-106A

-COMPONENT SIDE-

1-622-389-22
VP-9000

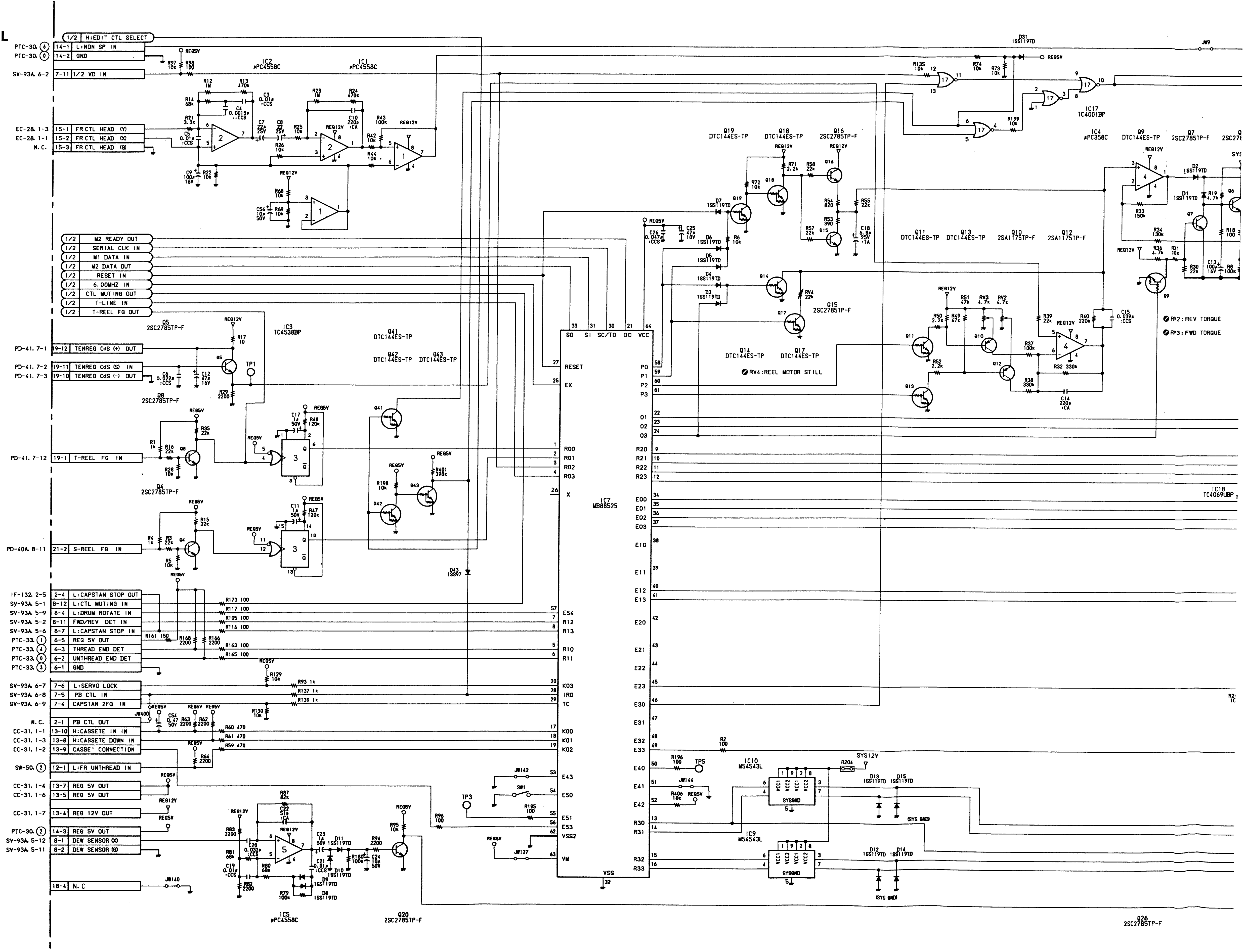

Q28 2SA1175TP-F
Q27 2SC2785TP-F
Q29 2SC2785TP-F
Q24 DTC144ES-TP
IC14 MB88201-173M
IC20 SN74HC244N
IC15 NJM2903D
Q23 DTC144ES-TP
Q38 DTC144ES-TP
IC19 TC4538BP
IC11 TC4069UBP
IC12 MB88505
IC13 TC40H000P
IC8 NJM2903D
Q31 2SC2785TP-F
Q35 2SC1826-Q
Q36 DTC144ES-TP
Q37 DTC144ES-TP
Q44 2SD1111
X1 6.0M
X2 4M
TP2
TP4
TP7
REG5V
REG12V
REG7V
REG5V (SP)
SYS 12V
RV1:TAPE SENSOR BALANCE
REG 5V OUT 2-8 IF-132, 2-1
BACK UP 5V OUT 20-7 KY-105A, 3-2
REG GND 2-7 IF-132, 2-2
LED GND 18-10 KY-105A, 4-1
REG 12V IN 3-8 DC-31, 3-1
REG GND 3-1 DC-31, 3-8
REG GND 3-2 DC-31, 3-7
REG 7V IN 3-3 DC-31, 3-6
SYS 12V IN 3-4 DC-31, 3-5
SYS 12V IN 3-5 DC-31, 3-4
SYS GND 3-6 DC-31, 3-3
SYS GND 3-7 DC-31, 3-2
KY MICON STAND BY 20-8 KY-105A, 3-1
KSTB 0 20-4 KY-105A, 3-5
RD 0 1-12 IF-132, 1-1
RD 1 1-11 IF-132, 1-2
RD 2 1-10 IF-132, 1-3
RD 3 1-9 IF-132, 1-4
RD 4 1-8 IF-132, 1-5
RD 5 1-7 IF-132, 1-6
RD 6 1-6 IF-132, 1-7
RD 7 1-5 IF-132, 1-8
L:RESET OUT 7-10 SV-93A, 6-3
L:RESET OUT 20-3 KY-105A, 3-6
L:RESET OUT 2-2 IF-132, 2-7
L:DRMD RESET 20-6 KY-105A, 3-3
L:LAMP CONTROL ON 13-3 CC-31, 1-8
L:TAPE TOP OUT 1-1 IF-132, 1-12
L:AUDIO MUTE OUT 5-1 AU-82A, 3-3
H:VIDEO MUTE OUT 4-3 VP-21A, 2-1
L:CONNECT IN 1-3 IF-132, 1-10
H:EDIT CTL SELECT 2/2
M2 READY IN 2/2
SERIAL CLK OUT 2/2
M1 DATA OUT 2/2
M2 DATA IN 2/2
L:RESET OUT 2/2
6.00MHZ OUT 2/2
CTL MUTING IN 2/2
T-LINE OUT 2/2
T-REEL FG IN 2/2

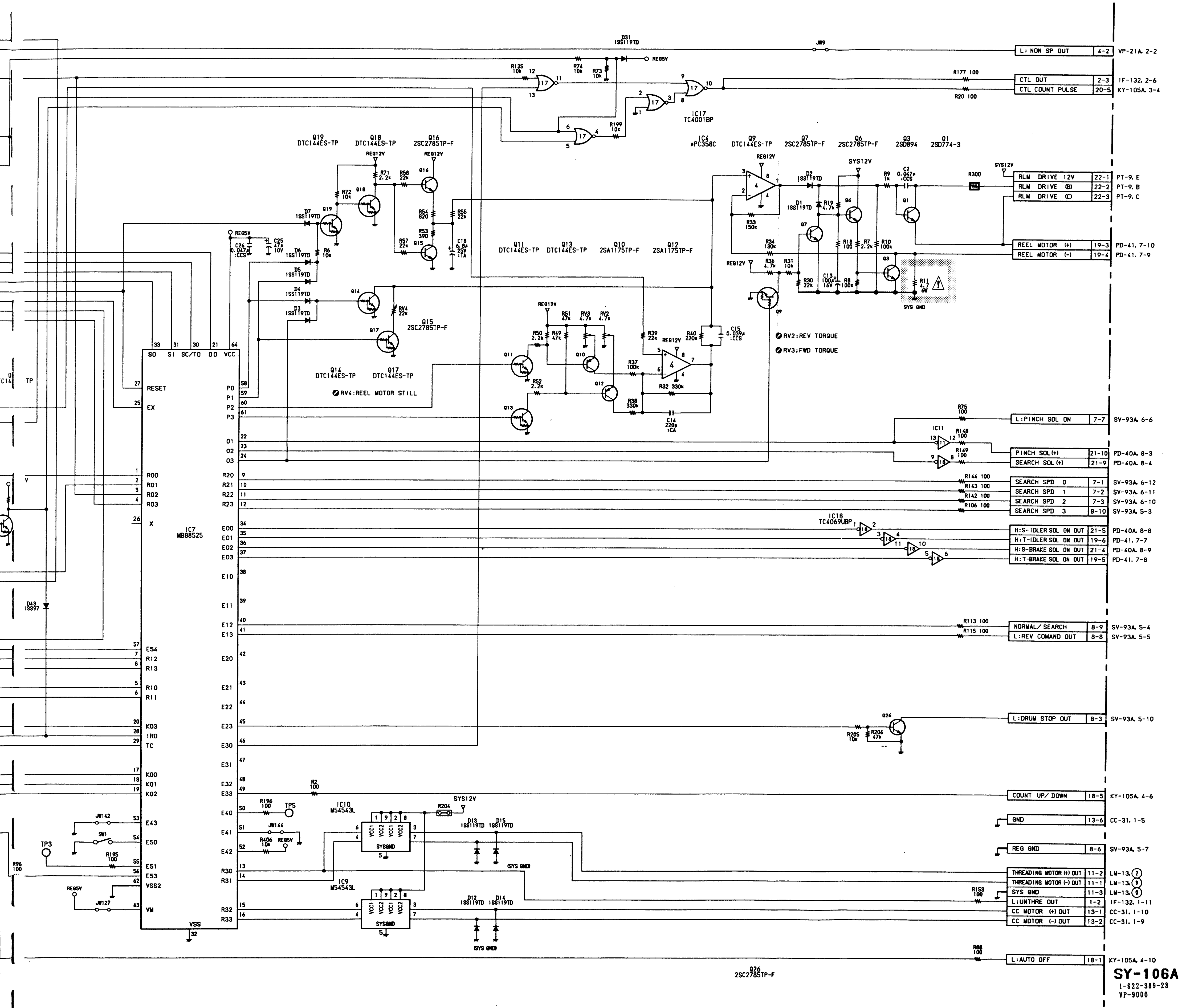
SY-106A (1/2)

1-622-389-23
VP-9000

SY-106A(2/2): SYSTEM CONTROL

UC; S/N 11251 and higher
J; S/N 10151 and higher


PTC-30 ④ 14-1 L:NON SP IN
PTC-30 ⑧ 14-2 GND
SV-93A 6-2 7-11 1/2 VD IN
1/2 H:EDIT CTL SELECT
EC-28 1-3 15-1 FR CTL HEAD (Y)
EC-28 1-1 15-2 FR CTL HEAD (X)
N.C. 15-3 FR CTL HEAD (G)
1/2 M2 READY OUT
1/2 SERIAL CLK IN
1/2 M1 DATA IN
1/2 M2 DATA OUT
1/2 RESET IN
1/2 6.00MHZ IN
1/2 CTL MUTING OUT
1/2 T-LINE IN
1/2 T-REEL FG OUT
PD-41 7-1 19-12 TENREG C&S (+) OUT
PD-41 7-2 19-11 TENREG C&S (S) IN
PD-41 7-3 19-10 TENREG C&S (-) OUT
PD-41 7-12 19-1 T-REEL FG IN
PD-40A 8-11 21-2 S-REEL FG IN
IF-132 2-5 2-4 L:CAPSTAN STOP OUT
SV-93A 5-1 8-12 L:CTL MUTING IN
SV-93A 5-9 8-4 L:DRUM ROTATE IN
SV-93A 5-2 8-11 FWD/REV DET IN
SV-93A 5-6 8-7 L:CAPSTAN STOP IN
PTC-33 ① 6-5 REG 5V OUT
PTC-33 ④ 6-3 THREAD END DET
PTC-33 ⑧ 6-2 UNTHREAD END DET
PTC-33 ③ 6-1 GND
SV-93A 6-7 7-6 L:SERVO LOCK
SV-93A 6-8 7-5 PB CTL IN
SV-93A 6-9 7-4 CAPSTAN 2FG IN
N.C. 2-1 PB CTL OUT
CC-31 1-1 13-10 H:CASSETE IN IN
CC-31 1-3 13-8 H:CASSETE DOWN IN
CC-31 1-2 13-9 CASSE' CONNECTION
SW-50 ② 12-1 L:FR UNTHREAD IN
CC-31 1-4 13-7 REG 5V OUT
CC-31 1-6 13-5 REG 5V OUT
CC-31 1-7 13-4 REG 12V OUT
PTC-30 ② 14-3 REG 5V OUT
SV-93A 5-12 8-1 DEW SENSOR (X)
SV-93A 5-11 8-2 DEW SENSOR (G)
18-4 N.C
IC2 μPC4558C
IC1 μPC4558C
IC3 TC4538BP
IC5 μPC4558C
IC7 MB88525
IC9 M54543L
IC10 M54543L
IC17 TC4001BP
IC4 μPC358C
IC18 TC4069UBP
Q5 2SC2785TP-F
Q8 2SC2785TP-F
Q4 2SC2785TP-F
Q41 DTC144ES-TP
Q42 DTC144ES-TP
Q43 DTC144ES-TP
Q19 DTC144ES-TP
Q18 DTC144ES-TP
Q16 2SC2785TP-F
Q14 DTC144ES-TP
Q15 2SC2785TP-F
Q17 DTC144ES-TP
Q11 DTC144ES-TP
Q13 DTC144ES-TP
Q10 2SA1175TP-F
Q12 2SA1175TP-F
Q9 DTC144ES-TP
Q7 2SC2785TP-F
Q20 2SC2785TP-F
Q26 2SC2785TP-F
D31 1SS119TD
D43 1SS97
RV4: REEL MOTOR STILL
RV2: REV TORQUE
RV3: FWD TORQUE
REG5V
REG12V
SYS12V
SYS GND
TP1
TP3
TP5
SW1
RESET
EX
X
SO SI SC/TO OO VCC
VSS
VSS2
VM
P0 P1 P2 P3
O1 O2 O3
R00 R01 R02 R03
R20 R21 R22 R23
E00 E01 E02 E03 E10 E11 E12 E13 E20 E21 E22 E23 E30 E31 E32 E33 E40 E41 E42
E54 R12 R13 R10 R11
K03 IRQ TC K00 K01 K02
E43 E50 E51 E53
R30 R31 R32 R33
VCC1 VCC2 VCC1 VCC2
SYSGND


D31 1SS119TD
REG5V
JW9
L: NON SP OUT 4-2 VP-21A 2-2
R135 10k
R74 10k
R73 10k
IC17 TC4001BP
R177 100
CTL OUT 2-3 IF-132 2-6
CTL COUNT PULSE 20-5 KY-105A 3-4
R20 100
R199 10k
Q19 DTC144ES-TP
Q18 DTC144ES-TP
Q16 2SC2785TP-F
IC4 μPC358C
Q9 DTC144ES-TP
Q7 2SC2785TP-F
Q6 2SC2785TP-F
Q3 2SD894
Q1 2SD774-3
REG12V
SYS12V
R71 2.2k
R58 22k
R72 10k
R54 820
R55 22k
R53 390
R57 22k
C18 6.8μ 25V :TA
D7 1SS119TD
R6 10k
C25 47μ 10V
C26 0.047μ :CCS
D6 1SS119TD
D5 1SS119TD
D4 1SS119TD
D3 1SS119TD
RV4 22k
Q15 2SC2785TP-F
Q14 DTC144ES-TP
Q17 DTC144ES-TP
RV4:REEL MOTOR STILL
Q11 DTC144ES-TP
Q13 DTC144ES-TP
Q10 2SA1175TP-F
Q12 2SA1175TP-F
R51 47k
RV3 4.7k
RV2 4.7k
R50 2.2k
R49 47k
R52 2.2k
R37 100k
R39 22k
R40 220k
C15 0.039μ :CCS
R32 330k
R38 330k
C14 220p :CA
D2 1SS119TD
D1 1SS119TD
R19 4.7k
R33 150k
R34 130k
R36 4.7k
R31 10k
R30 22k
C13 100μ 16V
R8 100k
R18 100
R7 2.2k
R10 100k
R9 1k
C2 0.047μ :CCS
R300
R11 4.7 SW
SYS GND
RLM DRIVE 12V 22-1 PT-9, E
RLM DRIVE (B) 22-2 PT-9, B
RLM DRIVE (C) 22-3 PT-9, C
REEL MOTOR (+) 19-3 PD-41, 7-10
REEL MOTOR (-) 19-4 PD-41, 7-9
RV2:REV TORQUE
RV3:FWD TORQUE
IC7 MB88525
SO SI SC/TO OO VCC
RESET EX X
P0 P1 P2 P3
O1 O2 O3
R00 R01 R02 R03
R20 R21 R22 R23
E00 E01 E02 E03 E10 E11 E12 E13
E54 R12 R13 R10 R11
K03 IRQ TC
K00 K01 K02
E20 E21 E22 E23 E30 E31 E32 E33
E40 E41 E42 E43 E50 E51 E53
R30 R31 R32 R33
VSS2 VM VSS
R75 100
L:PINCH SOL ON 7-7 SV-93A 6-6
IC11
R148 100
R149 100
PINCH SOL(+) 21-10 PD-40A 8-3
SEARCH SOL(+) 21-9 PD-40A 8-4
R144 100
R143 100
R142 100
R106 100
SEARCH SPD 0 7-1 SV-93A 6-12
SEARCH SPD 1 7-2 SV-93A 6-11
SEARCH SPD 2 7-3 SV-93A 6-10
SEARCH SPD 3 8-10 SV-93A 5-3
IC18 TC4069UBP
H:S-IDLER SOL ON OUT 21-5 PD-40A 8-8
H:T-IDLER SOL ON OUT 19-6 PD-41 7-7
H:S-BRAKE SOL ON OUT 21-4 PD-40A 8-9
H:T-BRAKE SOL ON OUT 19-5 PD-41 7-8
D43 1SS97
R113 100
R115 100
NORMAL/SEARCH 8-9 SV-93A 5-4
L:REV COMAND OUT 8-8 SV-93A 5-5
Q26
R205 10k
R206 47k
L:DRUM STOP OUT 8-3 SV-93A 5-10
R2 100
COUNT UP/DOWN 18-5 KY-105A 4-6
R196 100
TP5
IC10 M54543L
R204
SYS12V
D13 1SS119TD
D15 1SS119TD
GND 13-6 CC-31 1-5
JW144
R406 10k
REG5V
JW142
SW1
TP3
R195 100
R96 100
REG GND 8-6 SV-93A 5-7
IC9 M54543L
D12 1SS119TD
D14 1SS119TD
SYS GND
SYSGND
THREADING MOTOR (+) OUT 11-2 LM-13 ②
THREADING MOTOR (-) OUT 11-1 LM-13 ①
SYS GND 11-3 LM-13 ③
R153 100
L:UNTHRE OUT 1-2 IF-132 1-11
CC MOTOR (+) OUT 13-1 CC-31 1-10
CC MOTOR (-) OUT 13-2 CC-31 1-9
JW127
R88 100
L:AUTO OFF 18-1 KY-105A 4-10
Q26 2SC2785TP-F
TP

SY-106A (2/2)
1-622-389-23
VP-9000

注意１：△印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE;

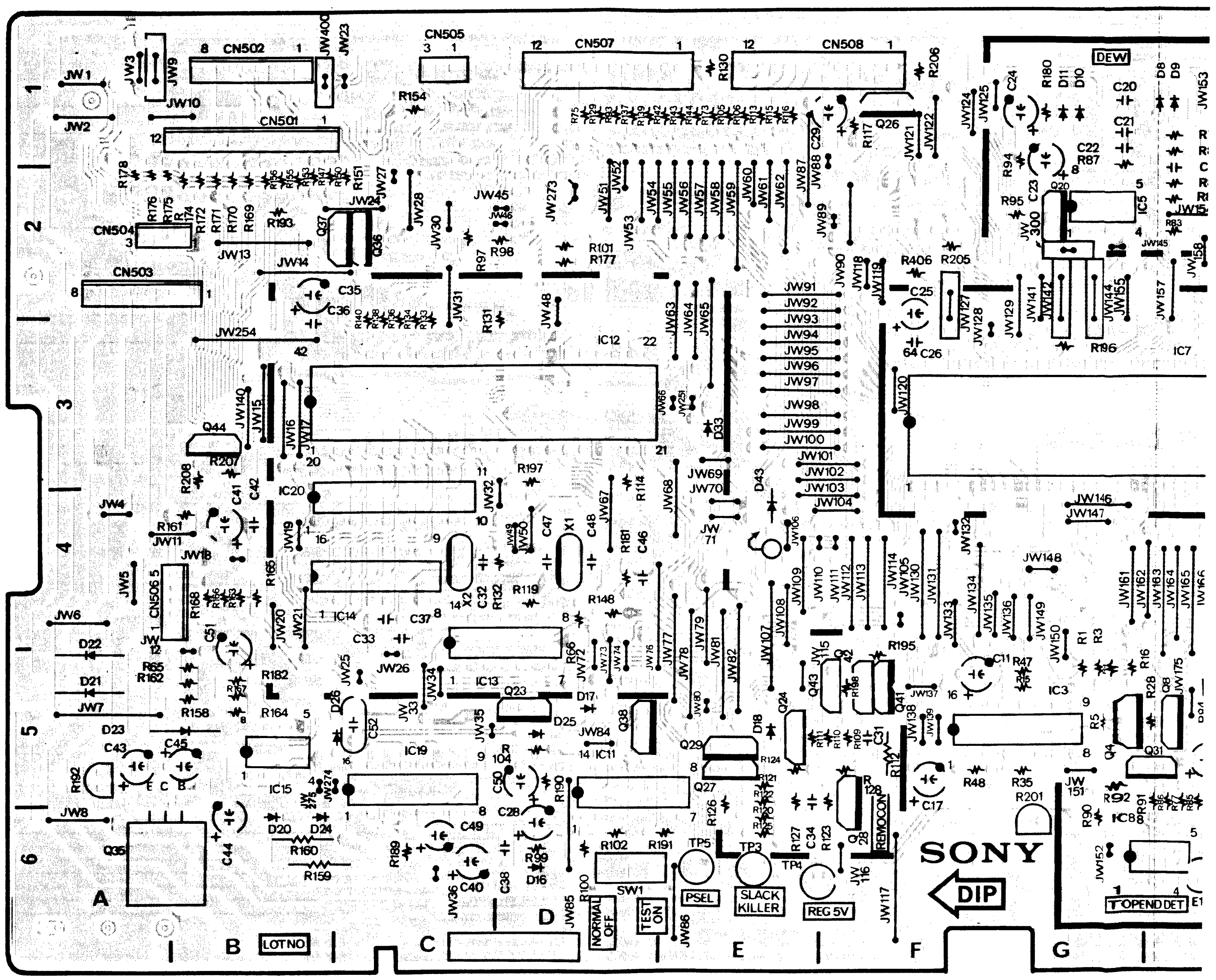
The shaded and △-marked components are critical to safety.
Replace only with same components as specified.

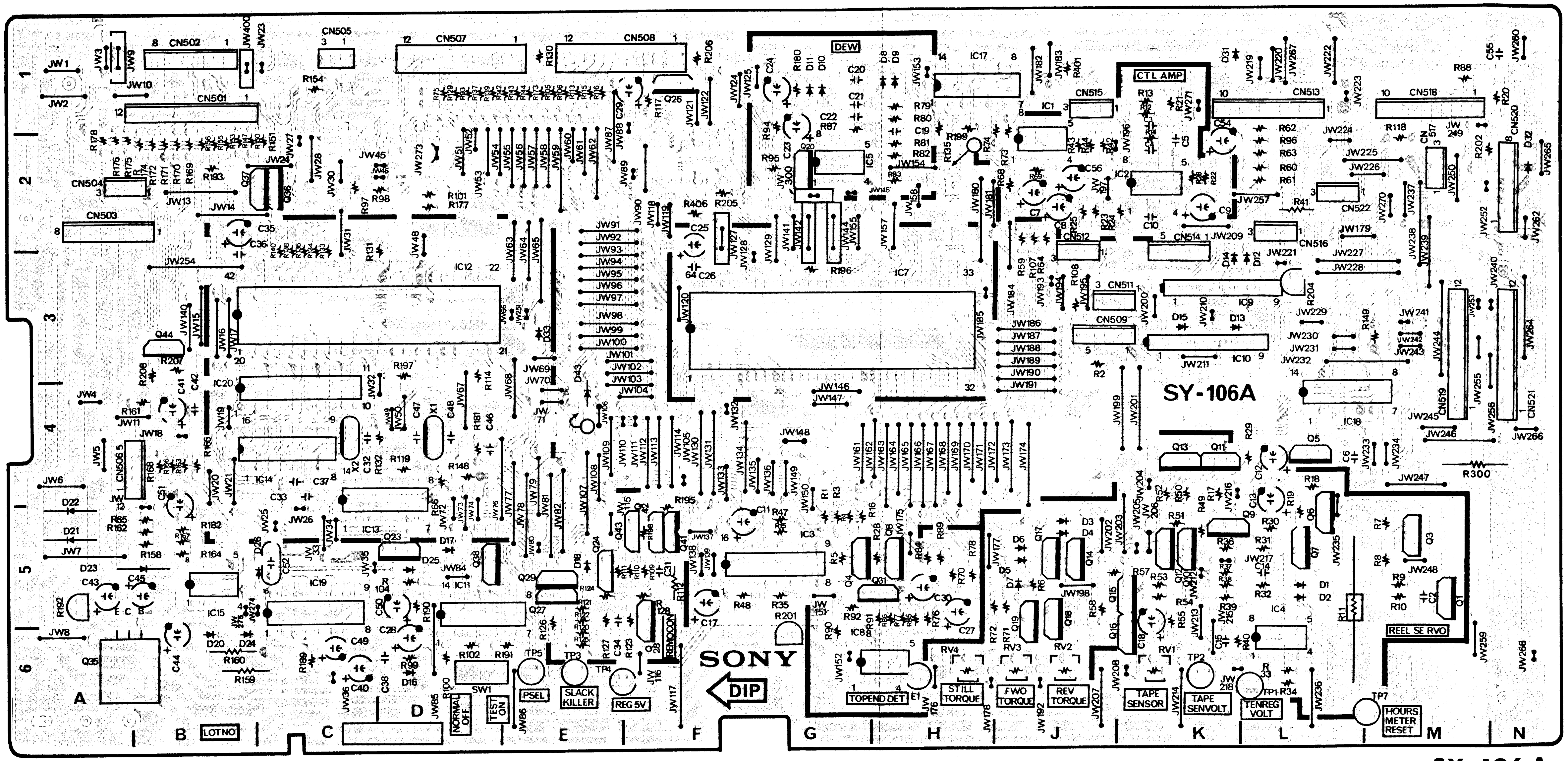
SY-106A: SYSTEM CONTROL

UC; S/N 11251 and higher
J; S/N 10151 and higher

SY-106A (1-622-389-23)

CN501	B-1
CN502	B-1
CN503	A-2
CN504	A-2
CN505	C-1
CN506	B-4
CN507	D-1
CN508	E-1
CN509	J-3
CN511	J-3
CN512	J-3
CN513	L-1
CN514	K-3
CN515	J-1
CN516	L-2
CN517	M-2
CN518	M-1
CN519	M-3
CN520	N-2
CN521	N-3
CN522	L-2
D1	L-5
D2	L-5
D3	J-5
D4	J-5
D5	J-5
D6	J-5
D7	J-5
D8	H-1
D9	H-1
D10	G-1
D11	G-1
D12	L-3
D13	K-3
D14	K-3
D15	K-3
D16	D-6
D17	D-5
D18	E-5
D20	B-6
D21	A-5
D22	A-5
D23	B-5
D24	B-6
D25	D-5
D26	C-5
D30	H-1
D31	K-1
D32	N-2
D33	E-3
D41	M-3
D42	M-3
D43	E-4
E1	H-6
IC1	J-2
IC2	K-2
IC3	G-5
IC4	L-6
IC5	G-2
IC7	G-3
IC8	H-6
IC9	K-3
IC10	K-3
IC11	D-5
IC12	D-3
IC13	D-4
IC14	C-4
IC15	B-5
IC17	H-1
IC18	L-4
IC19	C-5
IC20	C-4
Q1	M-5
Q3	M-5
Q4	G-5
Q5	L-4
Q6	L-5
Q7	L-5
Q8	H-5
Q9	K-5
Q10	K-5
Q11	K-4
Q12	K-5
Q13	K-4
Q14	J-5
Q15	K-5
Q16	K-6
Q17	J-5
Q18	J-5
Q19	J-5
Q20	G-2
Q23	D-5
Q24	E-5
Q26	F-1
Q27	E-5
Q28	F-5
Q29	E-5
Q31	H-5
Q35	A-6
Q36	C-2
Q37	C-2
Q38	D-5
Q41	F-5
Q42	F-5
Q43	F-5
Q44	B-3
RV1	K-6
RV2	J-6
RV3	J-6
RV4	H-6
SW1	D-6
TP1	L-6
TP2	K-6
TP3	E-6
TP4	E-6
TP5	E-6
TP7	M-6
X1	D-4
X2	C-4


A
B
C
D
E
F
G
1
2
3
4
5
6
CN501
CN502
CN503
CN504
CN505
CN506
CN507
CN508
IC12
IC14
IC13
IC19
IC15
IC11
IC20
IC3
IC5
IC7
Q35
Q44
X2
SW1
TP5
TP3
TP4
DEW
LOT NO
NORMAL OFF
TEST ON
PSEL
SLACK KILLER
REG 5V
REMOCON
SONY
DIP
T OPEND DET


SY-106A
SONY
DIP
DEW
CTL AMP
LOTNO
NORMAL OFF
TEST ON
PSEL
SLACK KILLER
REG 5V
REMOCON
TOPEND DET
STILL TORQUE
FWO TORQUE
REV TORQUE
TAPE SENSOR
TAPE SENVOLT
TENREG VOLT
HOURS METER RESET
REEL SE RVO
IC1
IC2
IC3
IC4
IC5
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC14
IC15
IC17
IC18
IC19
IC20
CN501
CN502
CN503
CN504
CN505
CN506
CN507
CN508
CN509
CN511
CN512
CN513
CN514
CN515
CN516
CN517
CN518
CN519
CN520
CN521
CN522
SW1
TP1
TP2
TP3
TP4
TP5
TP7
RV1
RV2
RV3
RV4
A
B
C
D
E
F
G
H
J
K
L
M
N
1
2
3
4
5
6

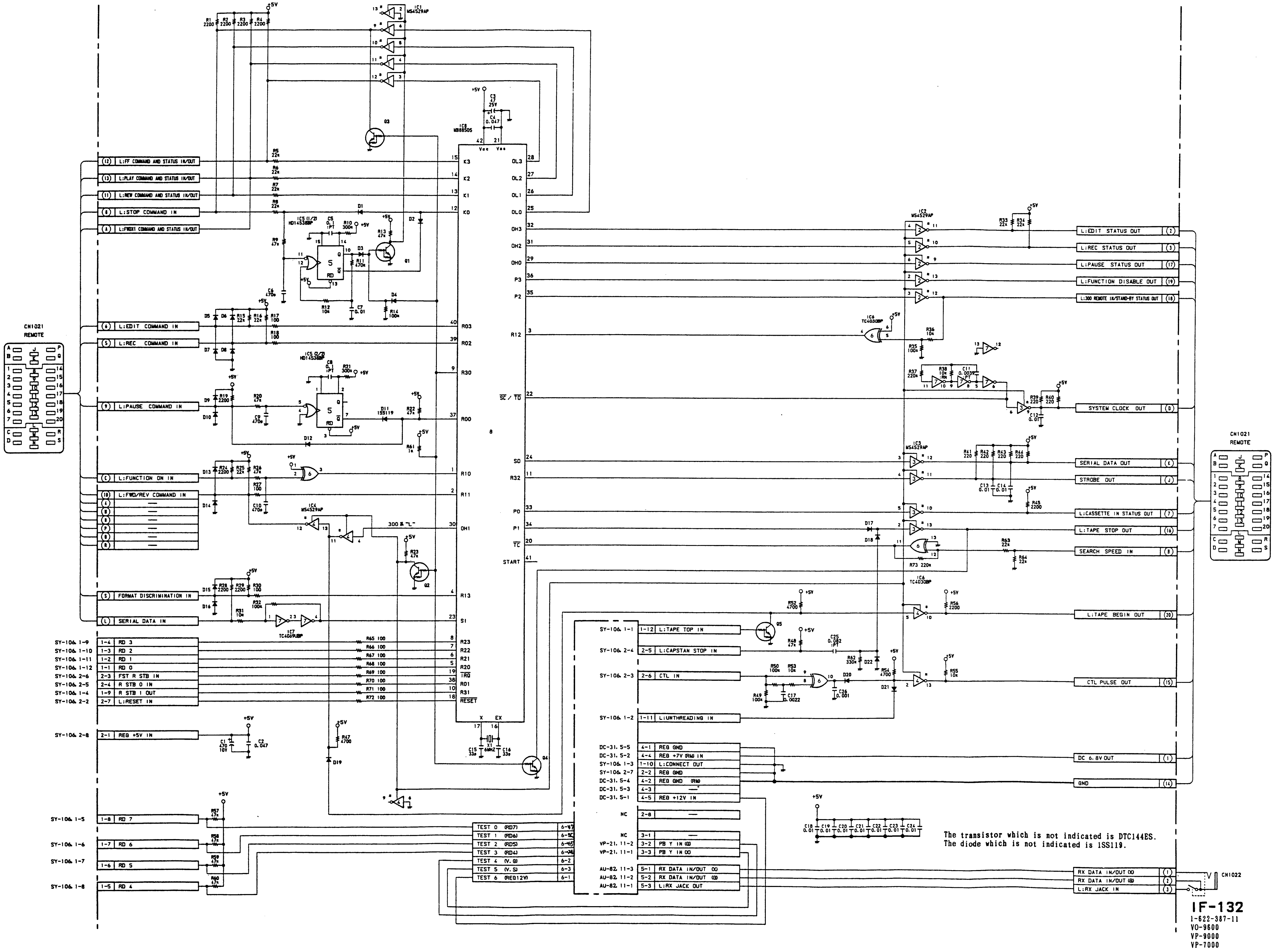
SY-106 A

-COMPONENT SIDE-

1-622-389-23
VP-9000

IF-132: 33P INTERFACE

UC; S/N 10001 thru 11700
J; S/N 10001 thru 10200


CN1021
REMOTE
(12) L:FF COMMAND AND STATUS IN/OUT
(13) L:PLAY COMMAND AND STATUS IN/OUT
(11) L:REW COMMAND AND STATUS IN/OUT
(8) L:STOP COMMAND IN
(A) L:FWDX1 COMMAND AND STATUS IN/OUT
(6) L:EDIT COMMAND IN
(5) L:REC COMMAND IN
(9) L:PAUSE COMMAND IN
(C) L:FUNCTION ON IN
(10) L:FWD/REV COMMAND IN
(S) FORMAT DISCRIMINATION IN
(L) SERIAL DATA IN
SY-106 1-9 1-4 RD 3
SY-106 1-10 1-3 RD 2
SY-106 1-11 1-2 RD 1
SY-106 1-12 1-1 RD 0
SY-106 2-6 2-3 FST R STB IN
SY-106 2-5 2-4 R STB 0 IN
SY-106 1-4 1-9 R STB 1 OUT
SY-106 2-2 2-7 L:RESET IN
SY-106 2-8 2-1 REG +5V IN
SY-106 1-5 1-8 RD 7
SY-106 1-6 1-7 RD 6
SY-106 1-7 1-6 RD 5
SY-106 1-8 1-5 RD 4
IC1 M54529AP
IC8 MB88505
IC5 (1/2) HD14538BP
IC5 (2/2) HD14538BP
IC4 M54529AP
IC7 TC4069UBP
IC2 M54529AP
IC3 M54529AP
IC6 TC4030BP
K3
K2
K1
K0
OL3
OL2
OL1
OL0
OH3
OH2
OH0
P3
P2
R03
R02
R30
R00
R12
SC / TC
R10
R11
OH1
SD
R32
P0
P1
TC
START
R13
SI
R23
R22
R21
R20
IRQ
R01
R31
RESET
X
EX
X1 6MHZ
300 R "L"
SY-106 1-1 1-12 L:TAPE TOP IN
SY-106 2-4 2-5 L:CAPSTAN STOP IN
SY-106 2-3 2-6 CTL IN
SY-106 1-2 1-11 L:UNTHREADING IN
DC-31 5-5 4-1 REG GND
DC-31 5-2 4-4 REG +7V (RM) IN
SY-106 1-3 1-10 L:CONNECT OUT
SY-106 2-7 2-2 REG GND
DC-31 5-4 4-2 REG GND (RM)
DC-31 5-3 4-3
DC-31 5-1 4-5 REG +12V IN
NC 2-8
NC 3-1
VP-21 11-2 3-2 PB Y IN (G)
VP-21 11-1 3-3 PB Y IN (X)
AU-82 11-3 5-1 RX DATA IN/OUT (X)
AU-82 11-2 5-2 RX DATA IN/OUT (G)
AU-82 11-1 5-3 L:RX JACK OUT
TEST 0 (RD7) 6-7
TEST 1 (RD6) 6-5
TEST 2 (RD5) 6-6
TEST 3 (RD4) 6-4
TEST 4 (V.G) 6-2
TEST 5 (V.S) 6-3
TEST 6 (REG12V) 6-1
L:EDIT STATUS OUT (2)
L:REC STATUS OUT (3)
L:PAUSE STATUS OUT (17)
L:FUNCTION DISABLE OUT (19)
L:300 REMOTE IN/STAND-BY STATUS OUT (18)
SYSTEM CLOCK OUT (D)
SERIAL DATA OUT (K)
STROBE OUT (J)
L:CASSETTE IN STATUS OUT (7)
L:TAPE STOP OUT (16)
SEARCH SPEED IN (B)
L:TAPE BEGIN OUT (20)
CTL PULSE OUT (15)
DC 6.8V OUT (1)
GND (14)
RX DATA IN/OUT (X) (1)
RX DATA IN/OUT (G) (2)
L:RX JACK IN (3)
CN1022
CN1021
REMOTE

The transistor which is not indicated is DTC144ES.
The diode which is not indicated is 1SS119.

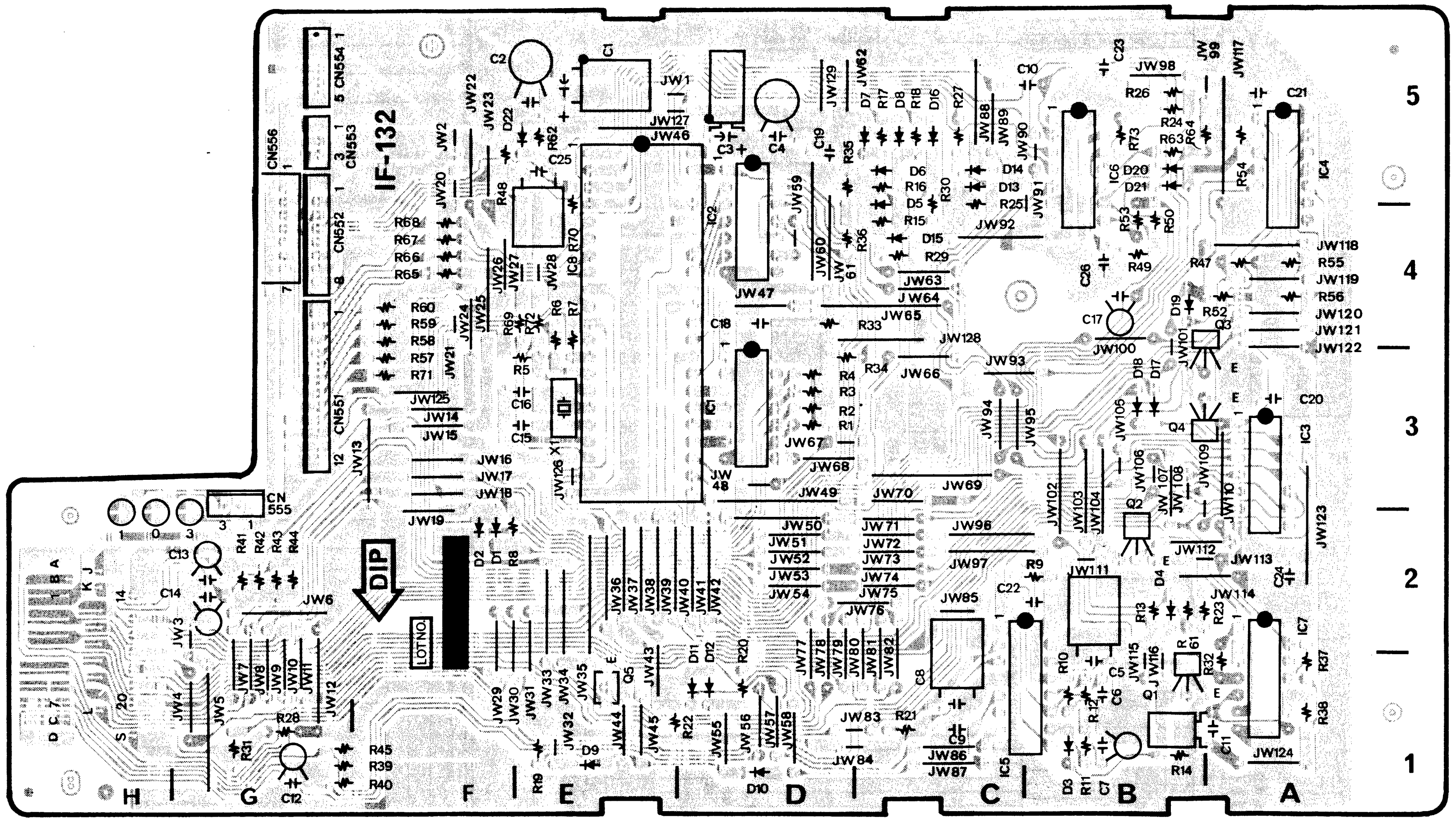
IF-132
1-622-387-11
VO-9600
VP-9000
VP-7000

IF-132: 33P INTERFACE

UC; S/N 10001 thru 11700
J; S/N 10001 thru 10200

IF-132 (1-622-387-11)

CN551	G-3
CN552	G-4
CN553	G-5
CN554	G-5
CN555	G-3
CN556	G-4
D1	F-2
D2	F-2
D3	B-1
D4	B-2
D5	C-5
D6	C-5
D7	C-5
D8	C-5
D9	E-1
D10	D-1
D11	D-1
D12	D-1
D13	C-5
D14	C-5
D15	C-4
D16	C-5
D17	B-3
D18	B-3
D19	B-4
D20	B-5
D21	B-5
D22	E-5
IC1	D-3
IC2	D-4
IC3	A-3
IC4	A-5
IC5	C-2
IC6	B-5
IC7	A-1
IC8	E-4
Q1	B-1
Q2	B-2
Q3	B-4
Q4	B-3
Q5	E-1
X1	E-3


IF-132
DIP
LOT NO.
CN554
CN553
CN552
CN551
CN556
CN 555
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
X1
Q1
Q2
Q3
Q4
Q5
H
G
F
E
D
C
B
A
5
4
3
2
1

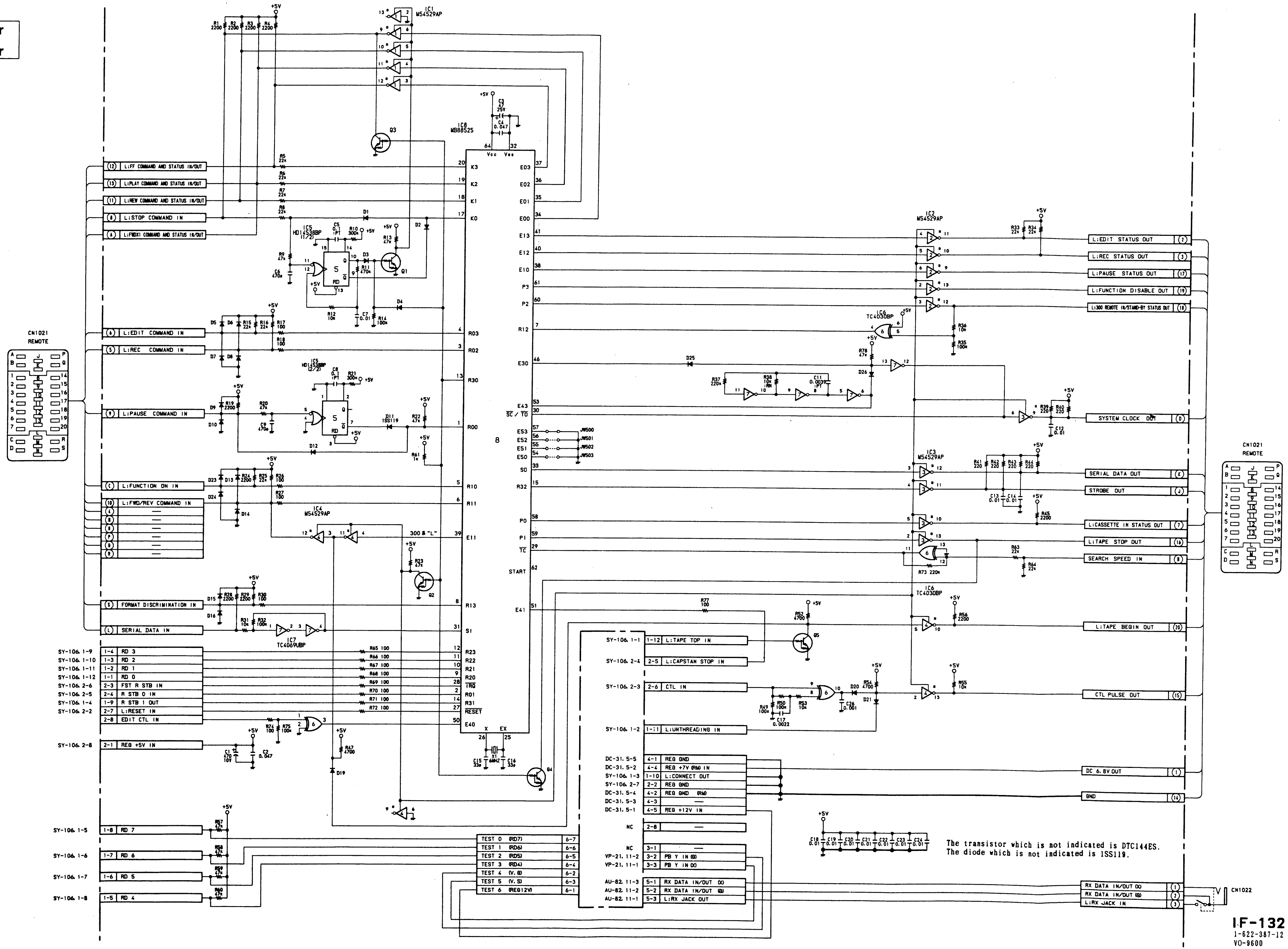
IF-132

-COMPONENT SIDE-

1-622-387-11
VO-9600
VP-9000
VP-7000

IF-132:33P INTERFACE

UC;S/N 11701 and higher
J; S/N 10201 and higher


IC1 M54529AP
IC8 MB88525
IC5 HD14538BP (1/2)
IC5 HD14538BP (2/2)
IC4 M54529AP
IC7 TC4069UBP
IC2 M54529AP
IC3 M54529AP
IC6 TC4030BP
CN1021 REMOTE
CN1022
L:FF COMMAND AND STATUS IN/OUT
L:PLAY COMMAND AND STATUS IN/OUT
L:REW COMMAND AND STATUS IN/OUT
L:STOP COMMAND IN
L:FWDX1 COMMAND AND STATUS IN/OUT
L:EDIT COMMAND IN
L:REC COMMAND IN
L:PAUSE COMMAND IN
L:FUNCTION ON IN
L:FWD/REV COMMAND IN
FORMAT DISCRIMINATION IN
SERIAL DATA IN
L:EDIT STATUS OUT
L:REC STATUS OUT
L:PAUSE STATUS OUT
L:FUNCTION DISABLE OUT
L:300 REMOTE IN/STAND-BY STATUS OUT
SYSTEM CLOCK OUT
SERIAL DATA OUT
STROBE OUT
L:CASSETTE IN STATUS OUT
L:TAPE STOP OUT
SEARCH SPEED IN
L:TAPE BEGIN OUT
CTL PULSE OUT
DC 6.8V OUT
GND
RX DATA IN/OUT (X)
RX DATA IN/OUT (B)
L:RX JACK IN
SY-106 1-9 RD 3
SY-106 1-10 RD 2
SY-106 1-11 RD 1
SY-106 1-12 RD 0
SY-106 2-6 FST R STB IN
SY-106 2-5 R STB 0 IN
SY-106 1-4 R STB 1 OUT
SY-106 2-2 L:RESET IN
EDIT CTL IN
SY-106 2-8 REG +5V IN
SY-106 1-5 RD 7
SY-106 1-6 RD 6
SY-106 1-7 RD 5
SY-106 1-8 RD 4
TEST 0 (RD7)
TEST 1 (RD6)
TEST 2 (RD5)
TEST 3 (RD4)
TEST 4 (V. B)
TEST 5 (V. S)
TEST 6 (REG12V)
SY-106 1-1 L:TAPE TOP IN
SY-106 2-4 L:CAPSTAN STOP IN
SY-106 2-3 CTL IN
SY-106 1-2 L:UNTHREADING IN
DC-31 5-5 REG GND
DC-31 5-2 REG +7V IN
SY-106 1-3 L:CONNECT OUT
SY-106 2-7 REG GND
DC-31 5-4 REG GND
DC-31 5-3
DC-31 5-1 REG +12V IN
NC
VP-21 11-2 PB Y IN (B)
VP-21 11-1 PB Y IN (X)
AU-82 11-3 RX DATA IN/OUT (X)
AU-82 11-2 RX DATA IN/OUT (B)
AU-82 11-1 L:RX JACK OUT
300 = "L"
+5V
Q1
Q2
Q3
Q4
Q5

The transistor which is not indicated is DTC144ES.
The diode which is not indicated is 1SS119.

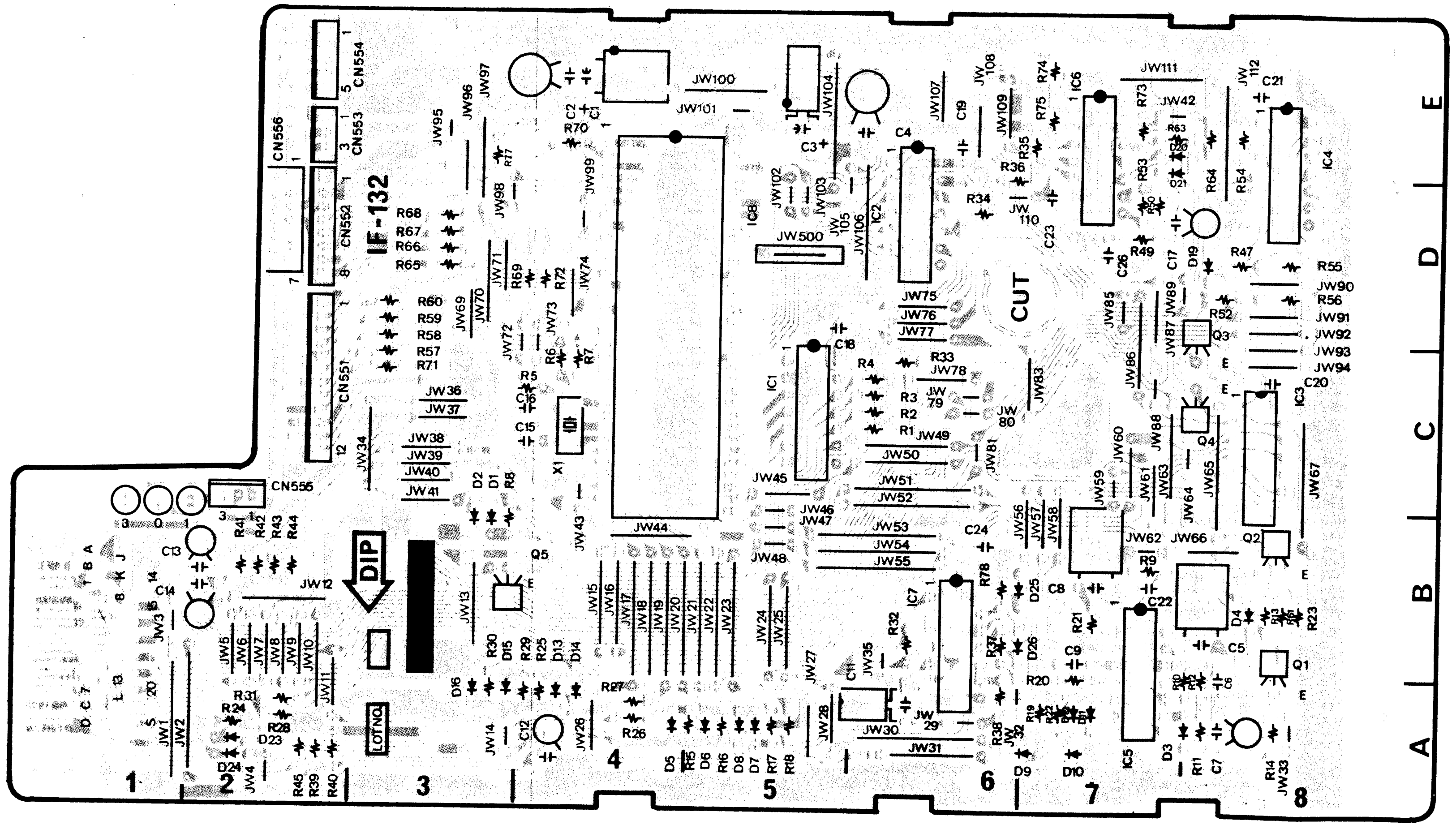
IF-132
1-622-387-12
VO-9600
VP-9000
VP-7000

IF-132:33P INTERFACE

UC; S/N 11701 and higher
J; S/N 10201 and higher

IF-132 (1-622-387-12)

CN551	C-2
CN552	D-2
CN553	E-2
CN554	E-2
CN555	C-2
CN556	D-2
D1	B-3
D2	B-3
D3	A-8
D4	B-8
D5	A-4
D6	A-5
D7	A-5
D8	A-5
D9	A-7
D10	A-7
D13	A-4
D14	A-4
D15	A-3
D16	A-3
D19	D-8
D20	E-7
D21	E-7
D23	A-2
D24	A-2
D25	B-7
D26	B-7
IC1	C-5
IC2	D-6
IC3	C-8
IC4	E-8
IC5	B-7
IC6	E-7
IC7	B-6
IC8	D-4
Q1	B-8
Q2	B-8
Q3	D-8
Q4	C-8
Q5	B-3
X1	C-4


1
2
3
4
5
6
7
8
A
B
C
D
E
IF-132
DIP
CUT
LOT NO.
CN551
CN552
CN553
CN554
CN555
CN556
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
Q1
Q2
Q3
Q4
Q5
X1

IF-132

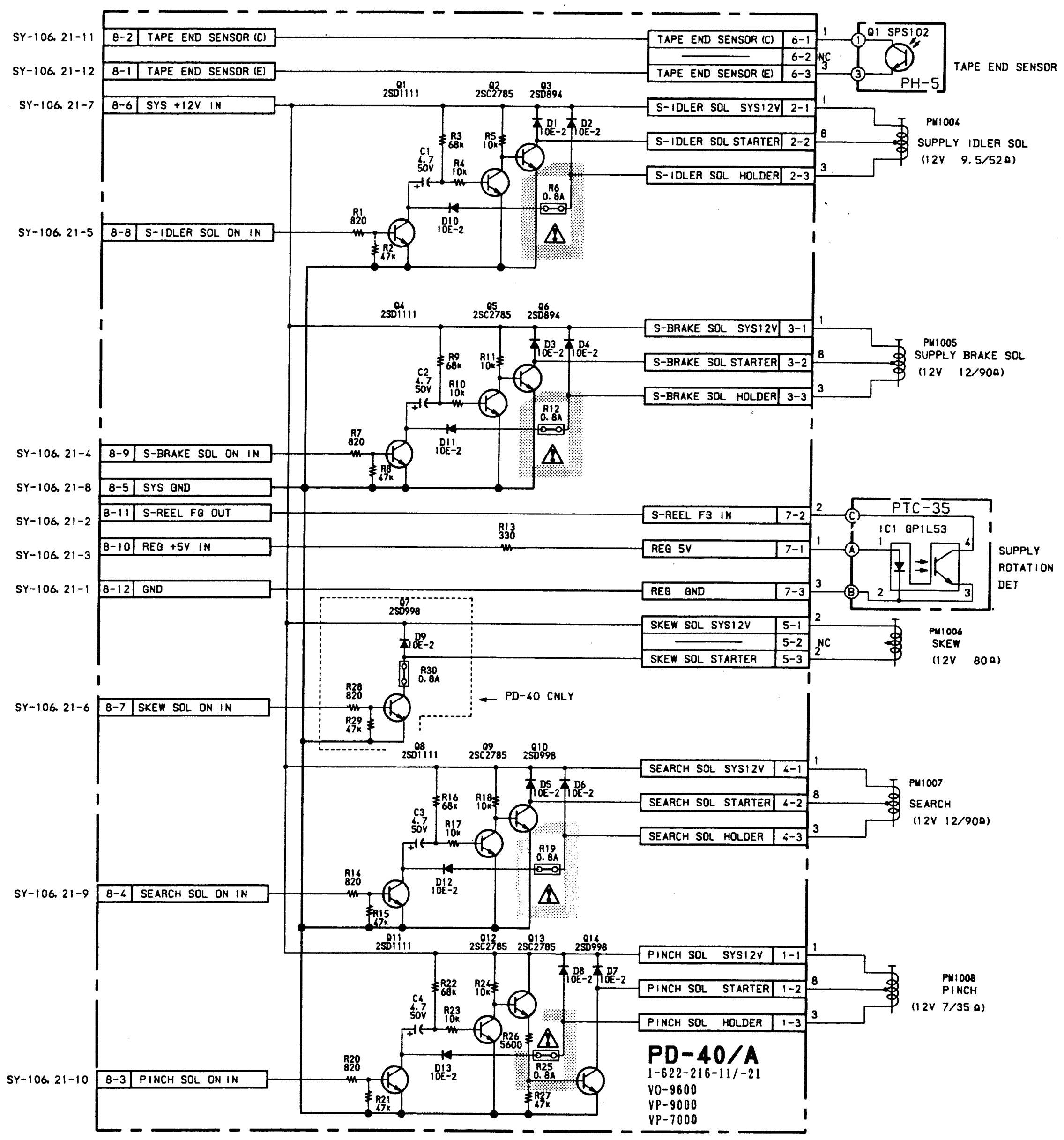
-COMPONENT SIDE-

1-622-387-12
VO-9600
VP-9000
VP-7000

PD-40A: PLUNGER SOLENOIDS

PH-5: TAP

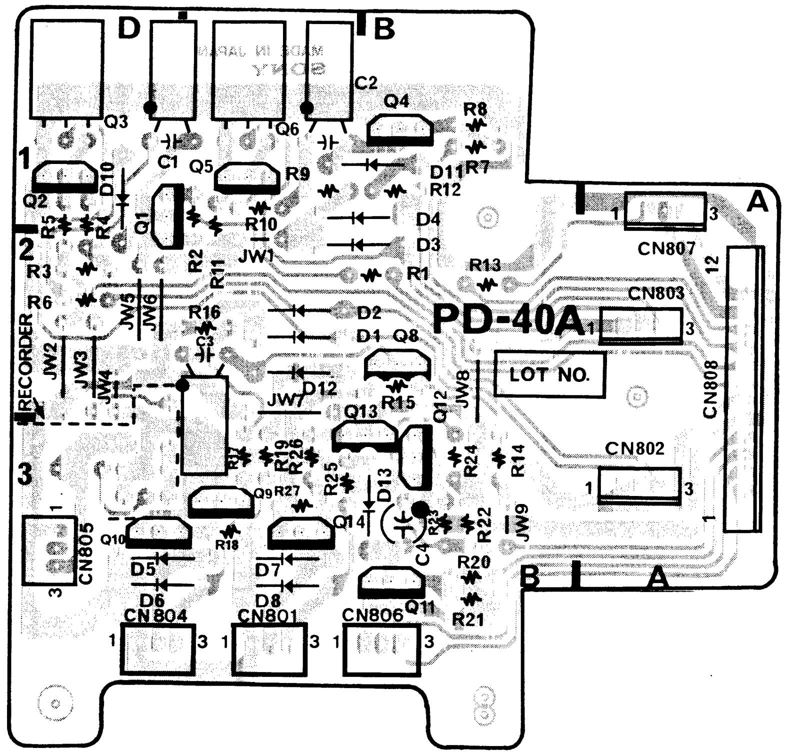
PTC-35: S


SY-106, 21-11
8-2 TAPE END SENSOR (C)
SY-106, 21-12
8-1 TAPE END SENSOR (E)
SY-106, 21-7
8-6 SYS +12V IN
SY-106, 21-5
8-8 S-IDLER SOL ON IN
SY-106, 21-4
8-9 S-BRAKE SOL ON IN
SY-106, 21-8
8-5 SYS GND
SY-106, 21-2
8-11 S-REEL FG OUT
SY-106, 21-3
8-10 REG +5V IN
SY-106, 21-1
8-12 GND
SY-106, 21-6
8-7 SKEW SOL ON IN
SY-106, 21-9
8-4 SEARCH SOL ON IN
SY-106, 21-10
8-3 PINCH SOL ON IN
Q1 2SD1111
Q2 2SC2785
Q3 2SD894
D1 10E-2
D2 10E-2
R3 68k
R5 10k
C1 4.7 50V
R4 10k
R6 0.8A
R1 820
R2 47k
D10 10E-2
Q4 2SD1111
Q5 2SC2785
Q6 2SD894
D3 10E-2
D4 10E-2
R9 68k
R11 10k
C2 4.7 50V
R10 10k
R12 0.8A
R7 820
R8 47k
D11 10E-2
R13 330
Q7 2SD998
D9 10E-2
R30 0.8A
R28 820
R29 47k
PD-40 CNLY
Q8 2SD1111
Q9 2SC2785
Q10 2SD998
D5 10E-2
D6 10E-2
R16 68k
R18 10k
C3 4.7 50V
R17 10k
R19 0.8A
R14 820
R15 47k
D12 10E-2
Q11 2SD1111
Q12 2SC2785
Q13 2SC2785
Q14 2SD998
D8 10E-2
D7 10E-2
R22 68k
R24 10k
C4 4.7 50V
R23 10k
R26 5600
R25 0.8A
R20 820
R21 47k
R27 47k
D13 10E-2
TAPE END SENSOR (C) 6-1
6-2
TAPE END SENSOR (E) 6-3
NC
Q1 SPS102
PH-5
TAPE END SENSOR
S-IDLER SOL SYS12V 2-1
S-IDLER SOL STARTER 2-2
S-IDLER SOL HOLDER 2-3
PM1004
SUPPLY IDLER SOL
(12V 9.5/52Ω)
S-BRAKE SOL SYS12V 3-1
S-BRAKE SOL STARTER 3-2
S-BRAKE SOL HOLDER 3-3
PM1005
SUPPLY BRAKE SOL
(12V 12/90Ω)
S-REEL FG IN 7-2
REG 5V 7-1
REG GND 7-3
PTC-35
IC1 GP1L53
SUPPLY ROTATION DET
SKEW SOL SYS12V 5-1
5-2
SKEW SOL STARTER 5-3
PM1006
SKEW
(12V 80Ω)
SEARCH SOL SYS12V 4-1
SEARCH SOL STARTER 4-2
SEARCH SOL HOLDER 4-3
PM1007
SEARCH
(12V 12/90Ω)
PINCH SOL SYS12V 1-1
PINCH SOL STARTER 1-2
PINCH SOL HOLDER 1-3
PM1008
PINCH
(12V 7/35 Ω)
PD-40/A
1-622-216-11/-21
VO-9600
VP-9000
VP-7000

注意１：⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE:

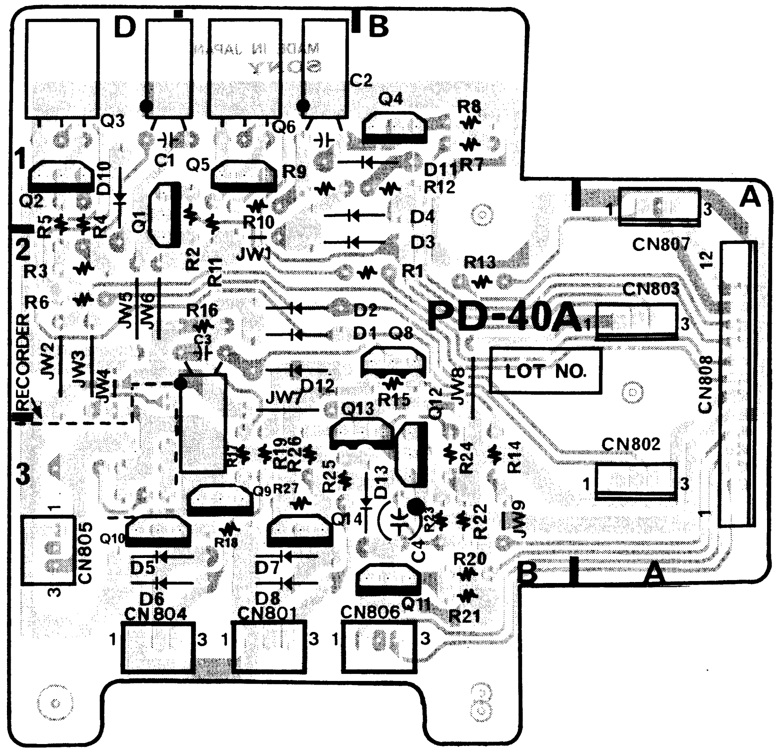
The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.


D
B
A
1
2
3
Q1
Q2
Q3
Q4
Q5
Q6
Q8
Q9
Q10
Q11
Q12
Q13
Q14
C1
C2
C3
C4
D1
D2
D3
D4
D5
D6
D7
D8
D10
D11
D12
D13
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
R18
R19
R20
R21
R22
R23
R24
R25
R26
R27
JW1
JW2
JW3
JW4
JW5
JW6
JW7
JW8
JW9
RECORDER
PD-40A
LOT NO.
CN801
CN802
CN803
CN804
CN805
CN806
CN807
CN808

PD-40A

-COMPONENT SIDE-

1-622-216-21
VP-9000

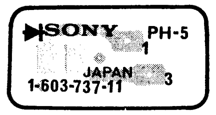

D
B
Q3
C2
Q4
R8
Q6
C1
Q5
1
D10
D11
R7
Q2
R9
R12
R5
R4
Q1
R10
D4
A
2
R2
JW1
D3
CN807
R3
R11
R1
R13
12
R6
JW5
JW6
R16
D2
CN803
PD-40A
D1
Q8
RECORDER
JW2
JW3
JW4
C3
D12
LOT NO.
JW7
R15
JW8
CN808
Q13
Q12
R17
R19
R26
R25
CN802
3
R24
R14
D13
Q9
R27
Q14
R23
R22
JW9
CN805
Q10
R18
C4
R20
D5
D7
B
A
D6
D8
Q11
CN804
CN801
CN806
R21

PD-4OA

-COMPONENT SIDE-

1-622-216-21
VP-9000

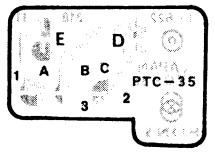
PH-5: TAPE BEGINNING/END SENSOR
PTC-35: S/T REEL ROTATION DETECTOR


SONY
PH-5
1
JAPAN
1-603-737-11
3

PH-5

-COMPONENT SIDE-

1-603-737-11
VO-9600
VP-9000
VP-7000

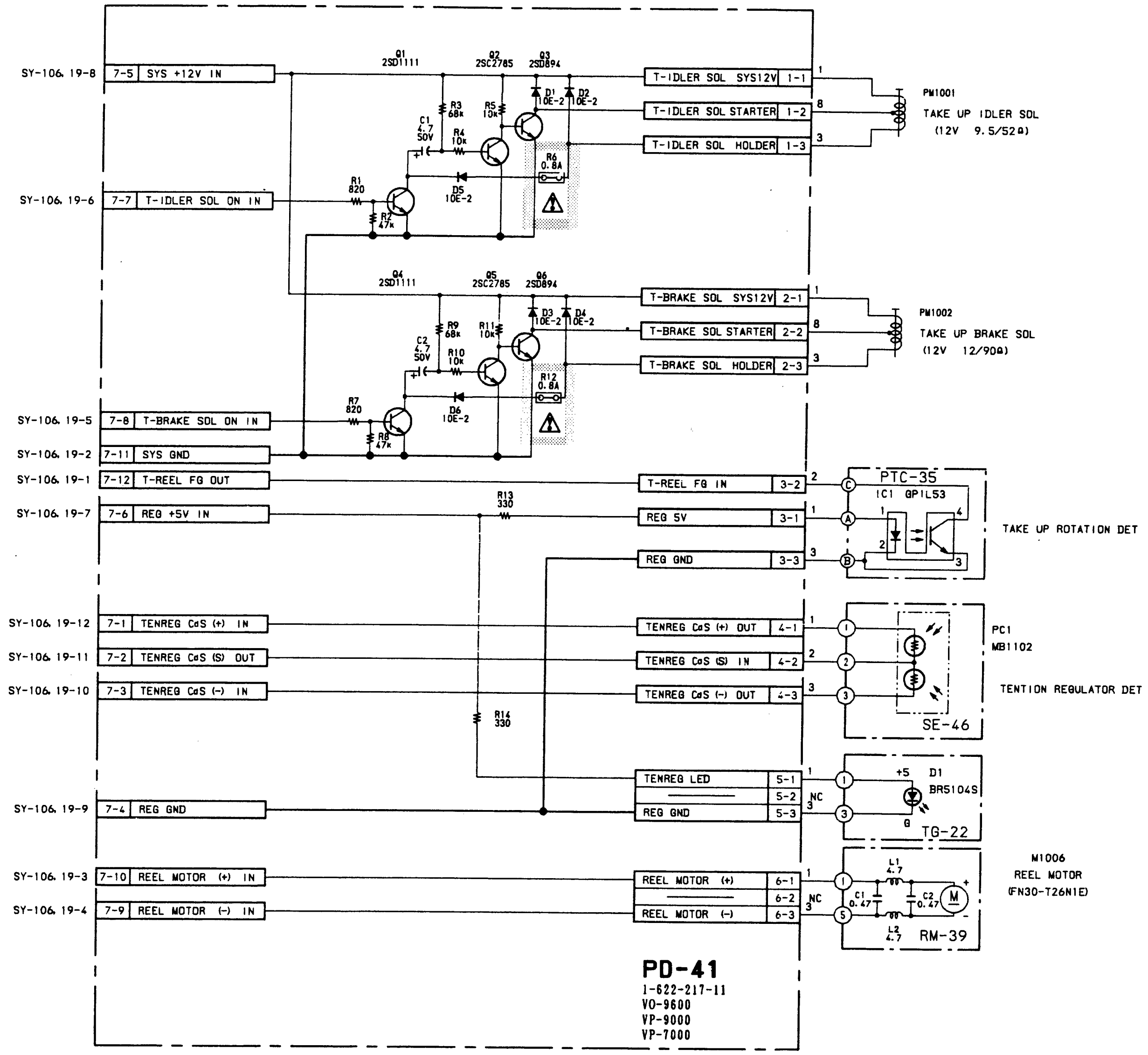

E
D
1
A
B
C
PTC-35
2
3

PTC-35

-COMPONENT SIDE-

1-622-218-11
VO-9600
VP-9000
VP-7000

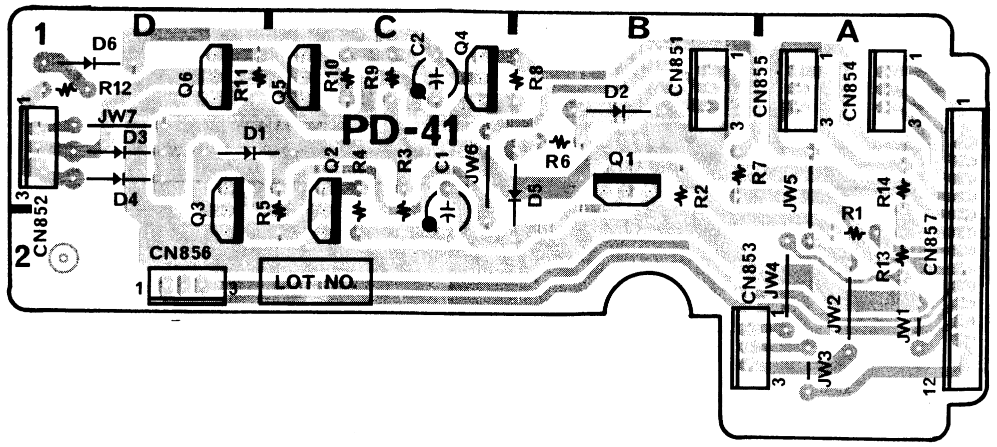
PD-41: PLUNGER SOLENOIDS


SY-106, 19-8
7-5 SYS +12V IN
SY-106, 19-6
7-7 T-IDLER SOL ON IN
SY-106, 19-5
7-8 T-BRAKE SOL ON IN
SY-106, 19-2
7-11 SYS GND
SY-106, 19-1
7-12 T-REEL FG OUT
SY-106, 19-7
7-6 REG +5V IN
SY-106, 19-12
7-1 TENREG CdS (+) IN
SY-106, 19-11
7-2 TENREG CdS (S) OUT
SY-106, 19-10
7-3 TENREG CdS (-) IN
SY-106, 19-9
7-4 REG GND
SY-106, 19-3
7-10 REEL MOTOR (+) IN
SY-106, 19-4
7-9 REEL MOTOR (-) IN
Q1 2SD1111
Q2 2SC2785
Q3 2SD894
Q4 2SD1111
Q5 2SC2785
Q6 2SD894
R1 820
R2 47k
R3 68k
R4 10k
R5 10k
R6 0.8A
R7 820
R8 47k
R9 68k
R10 10k
R11 10k
R12 0.8A
R13 330
R14 330
C1 4.7 50V
C2 4.7 50V
D1 10E-2
D2 10E-2
D3 10E-2
D4 10E-2
D5 10E-2
D6 10E-2
T-IDLER SOL SYS12V 1-1
T-IDLER SOL STARTER 1-2
T-IDLER SOL HOLDER 1-3
PM1001
TAKE UP IDLER SOL
(12V 9.5/52Ω)
T-BRAKE SOL SYS12V 2-1
T-BRAKE SOL STARTER 2-2
T-BRAKE SOL HOLDER 2-3
PM1002
TAKE UP BRAKE SOL
(12V 12/90Ω)
T-REEL FG IN 3-2
REG 5V 3-1
REG GND 3-3
PTC-35
IC1 GP1L53
TAKE UP ROTATION DET
TENREG CdS (+) OUT 4-1
TENREG CdS (S) IN 4-2
TENREG CdS (-) OUT 4-3
PC1
MB1102
SE-46
TENTION REGULATOR DET
TENREG LED 5-1
5-2
REG GND 5-3
NC
+5 D1
BR5104S
G
TG-22
REEL MOTOR (+) 6-1
6-2
REEL MOTOR (-) 6-3
L1 4.7
L2 4.7
C1 0.47
C2 0.47
M
RM-39
M1006
REEL MOTOR
(FN30-T26N1E)
PD-41
1-622-217-11
VO-9600
VP-9000
VP-7000

注意1： ⚠ 印及び ▨ で囲まれた部品は安全性を維持するために重要な部品です。 従って交換する時は必ず指定の部品を使って下さい。

NOTE:

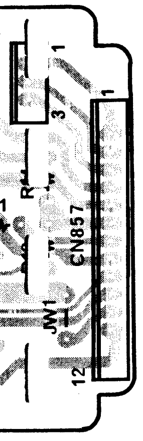
The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.


1
2
3
A
B
C
D
PD-41
D1
D2
D3
D4
D5
D6
Q1
Q2
Q3
Q4
Q5
Q6
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
C1
C2
JW1
JW2
JW3
JW4
JW5
JW6
JW7
CN851
CN852
CN853
CN854
CN855
CN856
CN857
LOT NO.

PD-41

-COMPONENT SIDE-

1-622-217-11
VO-9600
VP-9000
VP-7000

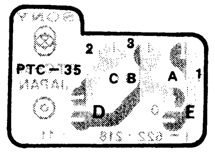

1
1
3
CN857
JW1
12

D 41

OMP NENT SIDE-

2-217-11
600
000
000

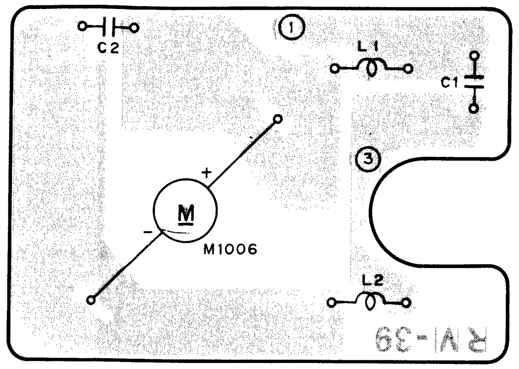
PTC-35: S/T REEL ROTATION DETECTOR
RM-39: REEL MOTOR
SE-46: TENSION REGULATOR DETECTOR
TG-22: TENSION REGULATOR LED


SONY
PTC-35
JAPAN
2
3
1
C B
A
D
E
1-622-218-11

PTC-35

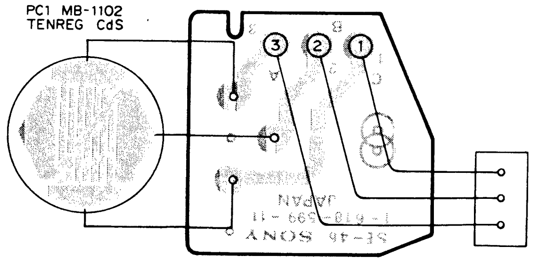
-COMPONENT SIDE-

1-622-218-11
VO-9600
VP-9000
VP-7000


C2
①
L1
C1
③
M
+
−
M1006
L2
RM-39

RM-39 -SOLDERING SIDE-

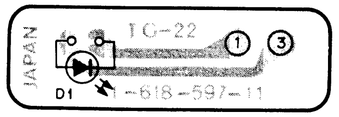
1-618-873-11
VO-9600
VP-9000
VP-7000


PC1 MB-1102
TENREG CdS
③
②
①
A
B
C
JAPAN
1-618-599-11
SE-46 SONY

SE-46

-SOLDERING SIDE-

1-618-599-11
VO-9600
VP-9000
VP-7000

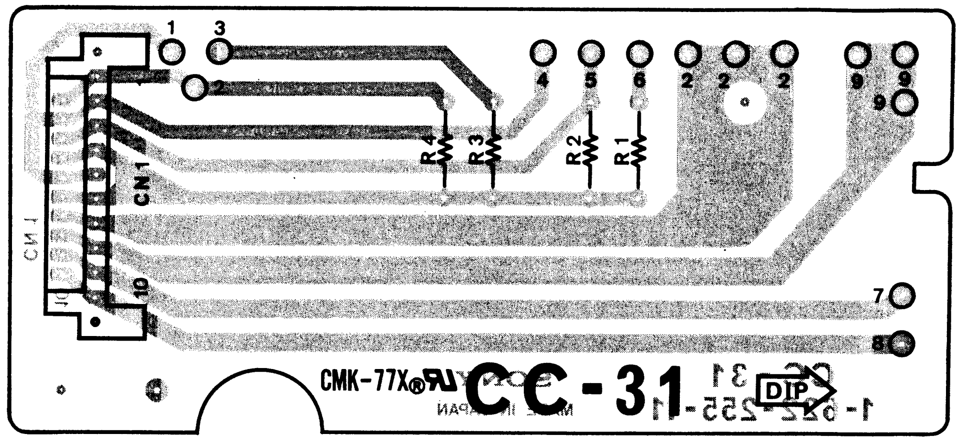

JAPAN
TG-22
①
③
D1
1-618-597-11

TG-22

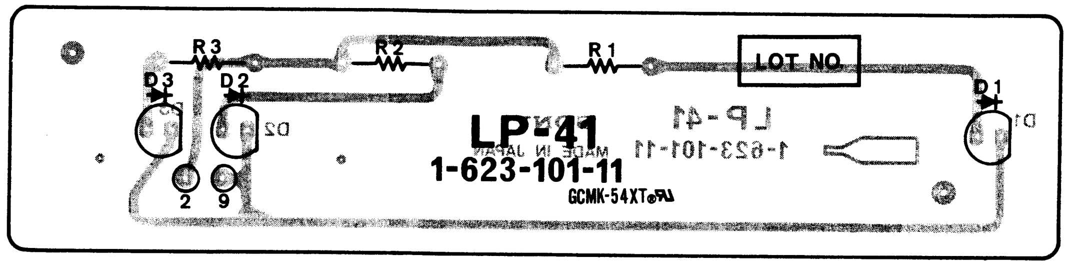
- SOLDERING SIDE -

1-618-597-11
VO-9600
VP-9000
VP-7000

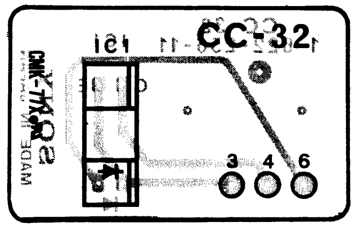
CC-31: CASSETTE COMPARTMENT DRIVER
CC-32: CASSETTE IN DETECTOR
CC-33: CASSETTE DOWN DETECTOR
LP-41: CASSETTE COMPARTMENT LIGHT


1
3
4
5
6
2
2
2
9
9
9
R4
R3
R2
R1
CN1
CN1
10
7
8
CMK-77X
CC-31
DIP
1-622-255-11

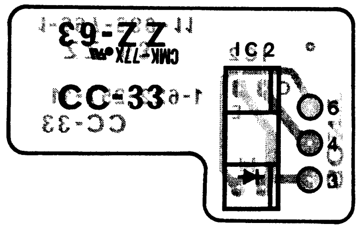
CC-31
-COMPONENT SIDE-
1-622-255-11
VO-9600
VP-9000
VP-7000


R3
R2
R1
LOT NO
D3
D2
D1
LP-41
1-623-101-11
GCMK-54XT
2
9

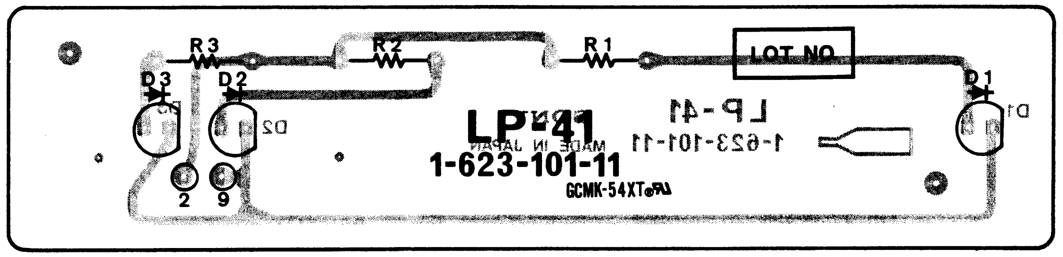
LP-41
-COMPONENT SIDE-
1-623-101-11
VO-9600
VP-9000
VP-7000


CC-32
CMK-77X
3
4
6

CC-32
-COMPONENT SIDE-
1-622-256-11
VO-9600
VP-9000
VP-7000


CC-33
CMK-77X
6
4
3

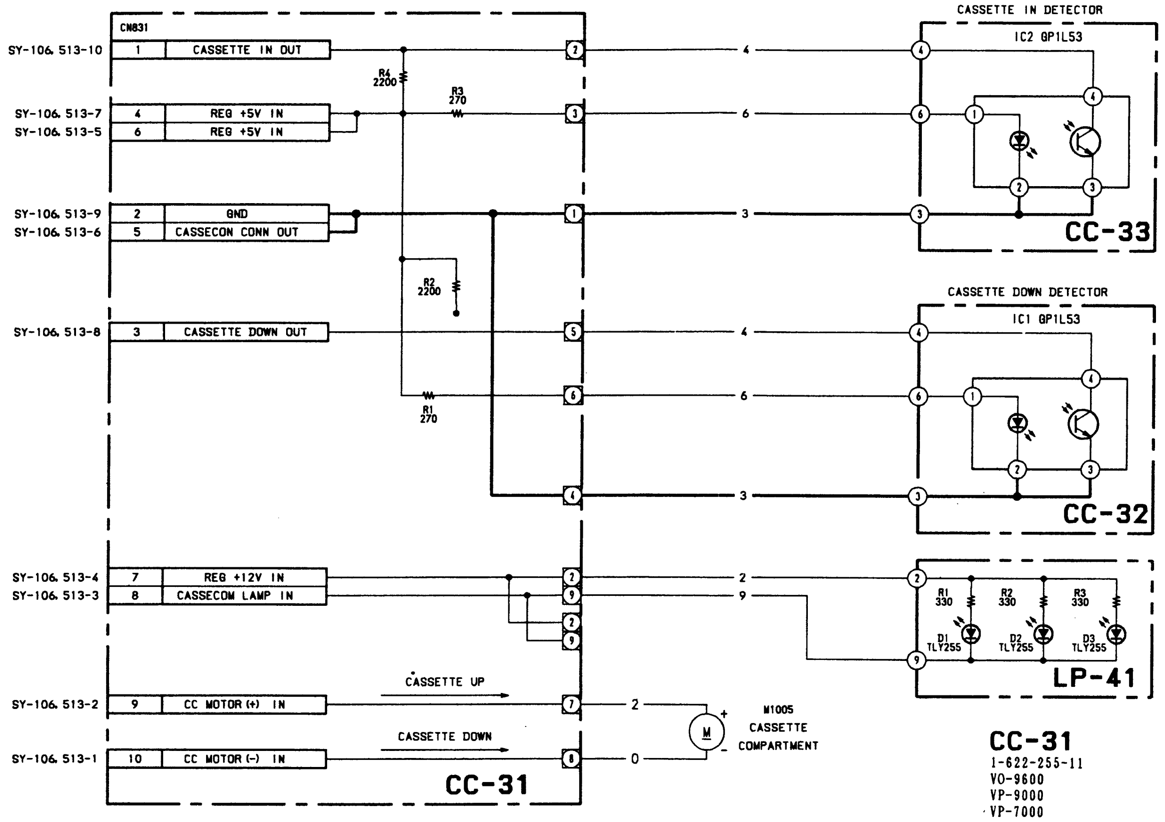
CC-33
-COMPONENT SIDE-
1-622-257-11
VO-9600
VP-9000
VP-7000


R3
R2
R1
LOT NO
D3
D2
D1
LP-41
1-623-101-11
GCMK-54XT
2
9

LP-41

-COMPONENT SIDE-

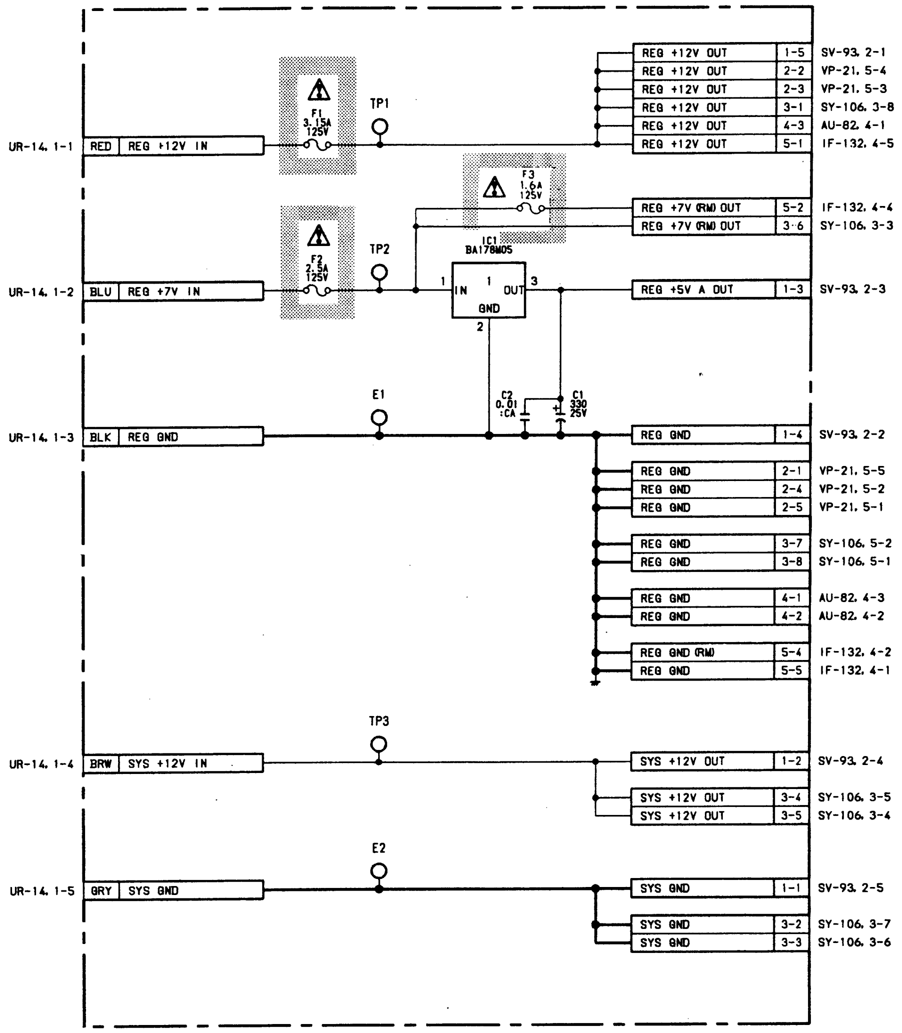
1-623-101-11
VO-9600
VP-9000
VP-7000


CN831
SY-106, 513-10
1
CASSETTE IN OUT
SY-106, 513-7
4
REG +5V IN
SY-106, 513-5
6
REG +5V IN
SY-106, 513-9
2
GND
SY-106, 513-6
5
CASSECON CONN OUT
SY-106, 513-8
3
CASSETTE DOWN OUT
SY-106, 513-4
7
REG +12V IN
SY-106, 513-3
8
CASSECOM LAMP IN
SY-106, 513-2
9
CC MOTOR (+) IN
SY-106, 513-1
10
CC MOTOR (-) IN
R4 2200
R3 270
R2 2200
R1 270
CASSETTE UP
CASSETTE DOWN
CC-31
M1005
CASSETTE
COMPARTMENT
CASSETTE IN DETECTOR
IC2 GP1L53
CC-33
CASSETTE DOWN DETECTOR
IC1 GP1L53
CC-32
R1 330
R2 330
R3 330
D1 TLY255
D2 TLY255
D3 TLY255
LP-41

CC-31

1-622-255-11
VO-9600
VP-9000
VP-7000

DC-31:DC SUPPLY


UR-14, 1-1
RED
REG +12V IN
F1
3.15A
125V
TP1
REG +12V OUT 1-5 SV-93, 2-1
REG +12V OUT 2-2 VP-21, 5-4
REG +12V OUT 2-3 VP-21, 5-3
REG +12V OUT 3-1 SY-106, 3-8
REG +12V OUT 4-3 AU-82, 4-1
REG +12V OUT 5-1 IF-132, 4-5
F3
1.6A
125V
REG +7V (RM) OUT 5-2 IF-132, 4-4
REG +7V (RM) OUT 3-6 SY-106, 3-3
UR-14, 1-2
BLU
REG +7V IN
F2
2.5A
125V
TP2
IC1
BA178M05
1
IN
OUT
3
GND
2
REG +5V A OUT 1-3 SV-93, 2-3
E1
C2
0.01
:CA
C1
330
25V
UR-14, 1-3
BLK
REG GND
REG GND 1-4 SV-93, 2-2
REG GND 2-1 VP-21, 5-5
REG GND 2-4 VP-21, 5-2
REG GND 2-5 VP-21, 5-1
REG GND 3-7 SY-106, 5-2
REG GND 3-8 SY-106, 5-1
REG GND 4-1 AU-82, 4-3
REG GND 4-2 AU-82, 4-2
REG GND (RM) 5-4 IF-132, 4-2
REG GND 5-5 IF-132, 4-1
TP3
UR-14, 1-4
BRW
SYS +12V IN
SYS +12V OUT 1-2 SV-93, 2-4
SYS +12V OUT 3-4 SY-106, 3-5
SYS +12V OUT 3-5 SY-106, 3-4
E2
UR-14, 1-5
GRY
SYS GND
SYS GND 1-1 SV-93, 2-5
SYS GND 3-2 SY-106, 3-7
SYS GND 3-3 SY-106, 3-6

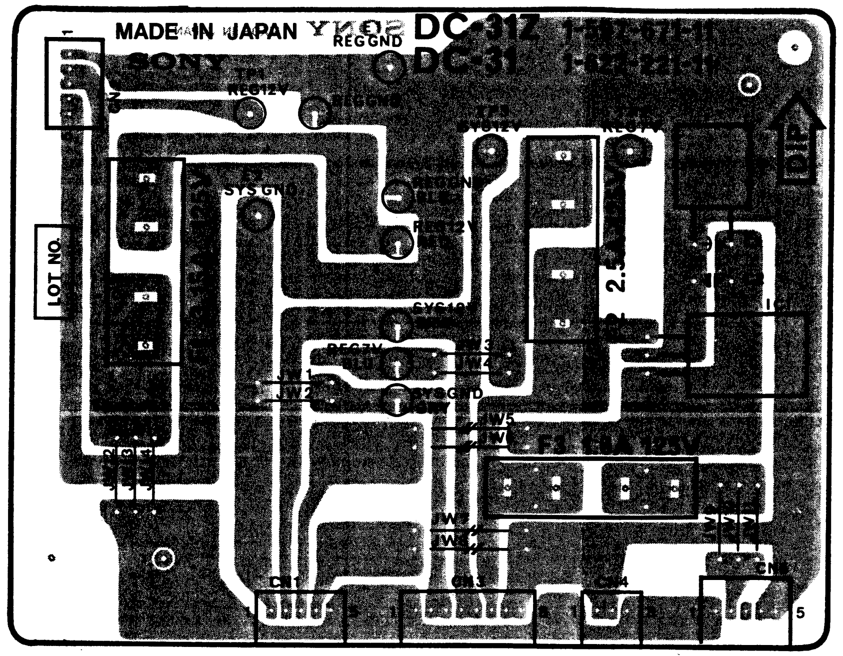
DC-31/A

1-622-221-11/-21
VO-9600
VP-9000
VO-9600P
VP-9000P

注意1：⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE:

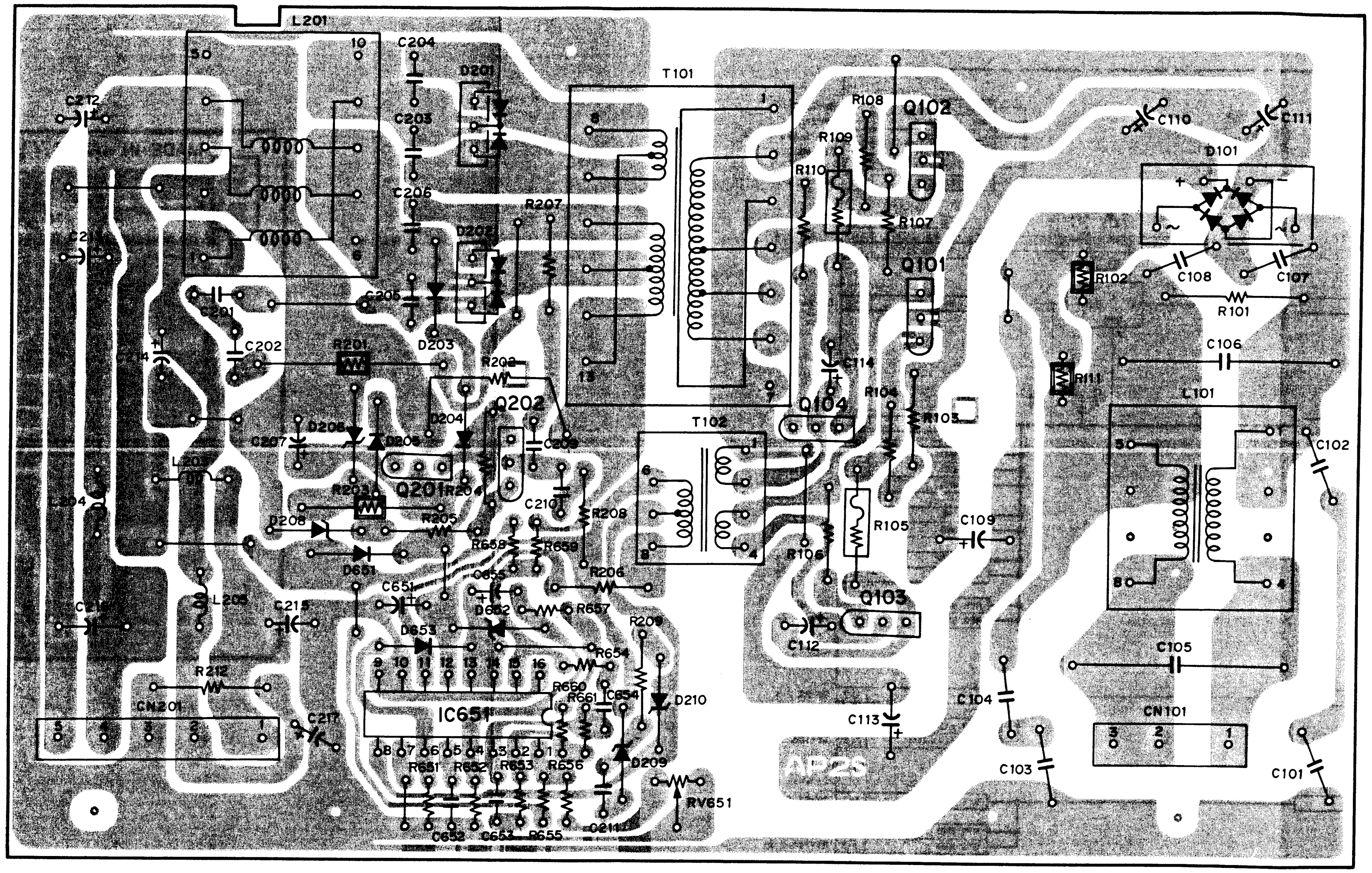
The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.

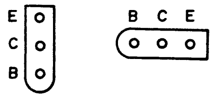

MADE IN JAPAN
SONY
DC-31Z
DC-31
REG GND
REG12V
SYS GND
LOT NO.
F3 1.6A 125V
CN1
CN3
CN4
5

DC-31
-COMPONENT SIDE-

1-622-221-11
VO-9600
VP-9000

UR-14: SWITCHING REGULATOR


L201
C204
D201
C203
C206
D202
R207
T101
R108
Q102
C110
C111
D101
C212
C205
D203
C201
C202
R201
R202
Q202
C214
C207
D206
D205
D204
C209
R109
R110
R107
Q101
R102
C108
C107
R101
C114
R104
R103
Q104
C106
R111
L101
T102
C102
Q201
R203
R204
C210
R208
L202
L204
D208
R205
R659
R658
D651
R206
R105
C109
R106
C651
C653
D652
R657
L203
C215
C216
D653
R209
R654
Q103
C112
C105
R212
R660
R661
C654
D210
C104
CN201
C217
IC651
C113
CN101
D209
C103
C101
R651
R652
R653
R656
RV651
C652
C651
R655
D211
AP2S



UR-14 -SOLDERING SIDE-

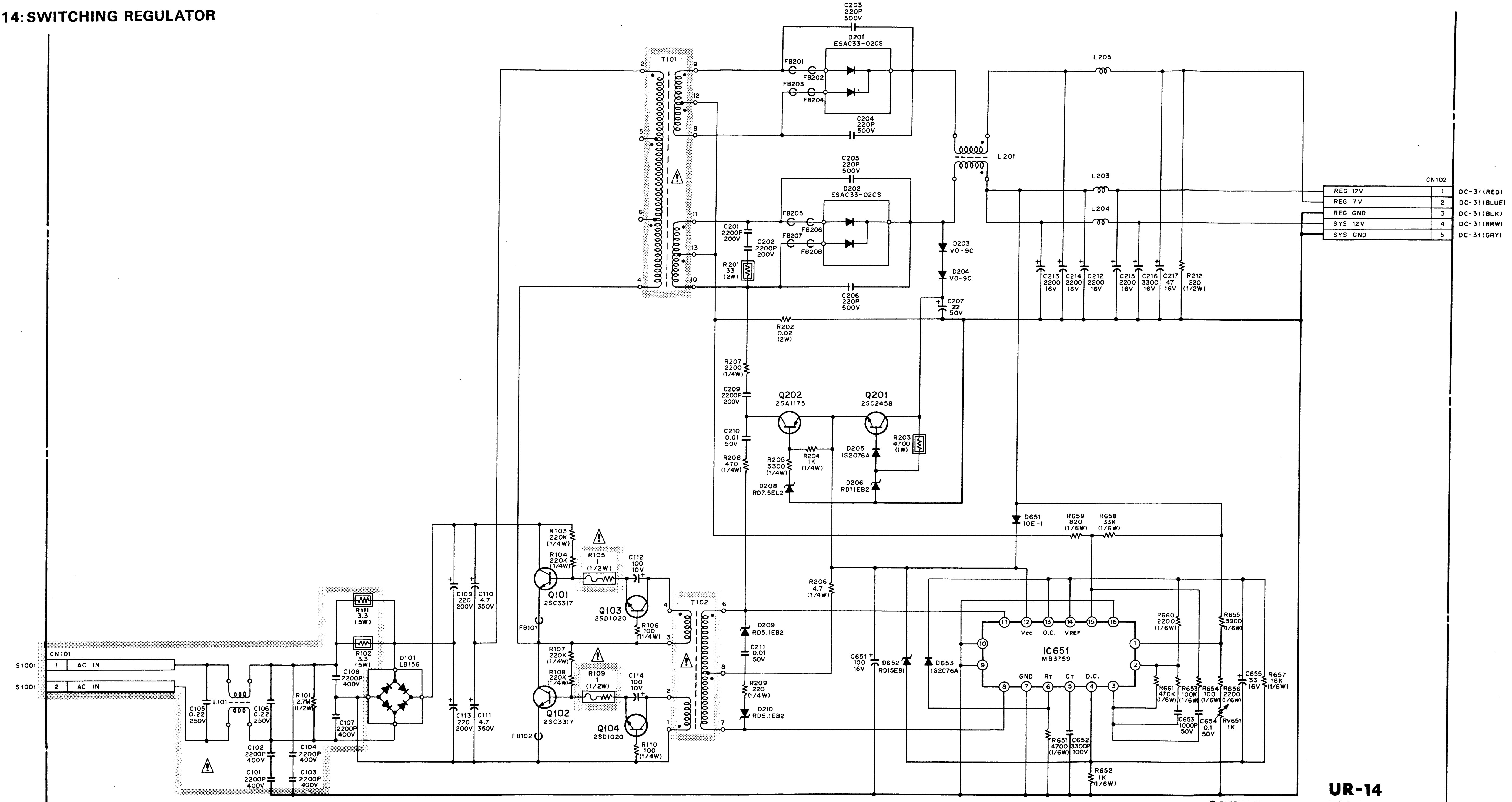
1-618-009-12

VO-9600

VP-9000

VP-7000

UR-14: SWITCHING REGULATOR


T101
C203 220P 500V
D201 ESAC33-02CS
FB201
FB202
FB203
FB204
C204 220P 500V
C205 220P 500V
D202 ESAC33-02CS
FB205
FB206
FB207
FB208
C201 2200P 200V
C202 2200P 200V
R201 33 (2W)
C206 220P 500V
L205
L201
L203
L204
D203 V0-9C
D204 V0-9C
C207 22 50V
C213 2200 16V
C214 2200 16V
C212 2200 16V
C215 2200 16V
C216 3300 16V
C217 47 16V
R212 220 (1/2W)
CN102
REG 12V
REG 7V
REG GND
SYS 12V
SYS GND
DC-31(RED)
DC-31(BLUE)
DC-31(BLK)
DC-31(BRW)
DC-31(GRY)
R202 0.02 (2W)
R207 2200 (1/4W)
C209 2200P 200V
Q202 2SA1175
Q201 2SC2458
C210 0.01 50V
R208 470 (1/4W)
R205 3300 (1/4W)
R204 1K (1/4W)
D205 1S2076A
R203 4700 (1W)
D208 RD7.5EL2
D206 RD11EB2
D651 10E-1
R659 820 (1/6W)
R658 33K (1/6W)
R103 220K (1/4W)
R104 220K (1/4W)
R105 1 (1/2W)
C112 100 10V
Q101 2SC3317
Q103 2SD1020
R106 100 (1/4W)
FB101
T102
R206 4.7 (1/4W)
D209 RD5.1EB2
C211 0.01 50V
R209 220 (1/4W)
D210 RD5.1EB2
C109 220 200V
C110 4.7 350V
C113 220 200V
C111 4.7 350V
R111 3.3 (5W)
R102 3.3 (5W)
D101 LB156
C108 2200P 400V
C107 2200P 400V
R101 2.7M (1/2W)
CN101
AC IN
S1001
L101
C105 0.22 250V
C106 0.22 250V
C102 2200P 400V
C104 2200P 400V
C101 2200P 400V
C103 2200P 400V
R107 220K (1/4W)
R108 220K (1/4W)
R109 1 (1/2W)
C114 100 10V
Q102 2SC3317
Q104 2SD1020
R110 100 (1/4W)
FB102
C651 100 16V
D652 RD15EB1
D653 1S2C76A
IC651 MB3759
Vcc
O.C.
VREF
GND
RT
CT
D.C.
R660 2200 (1/6W)
R655 3900 (1/6W)
R661 470K (1/6W)
R653 100K (1/6W)
R654 100 (1/6W)
R656 2200 (1/6W)
C655 33 16V
R657 18K (1/6W)
C653 1000P 50V
C654 0.1 50V
RV651 1K
R651 4700 (1/6W)
C652 3300P 100V
R652 1K (1/6W)
RV651; REG 12V

UR-14
1-618-009-12
VO-9600
VP-9000
VP-7000

NOTE;

注意１：⚠印及び▒▒▒で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

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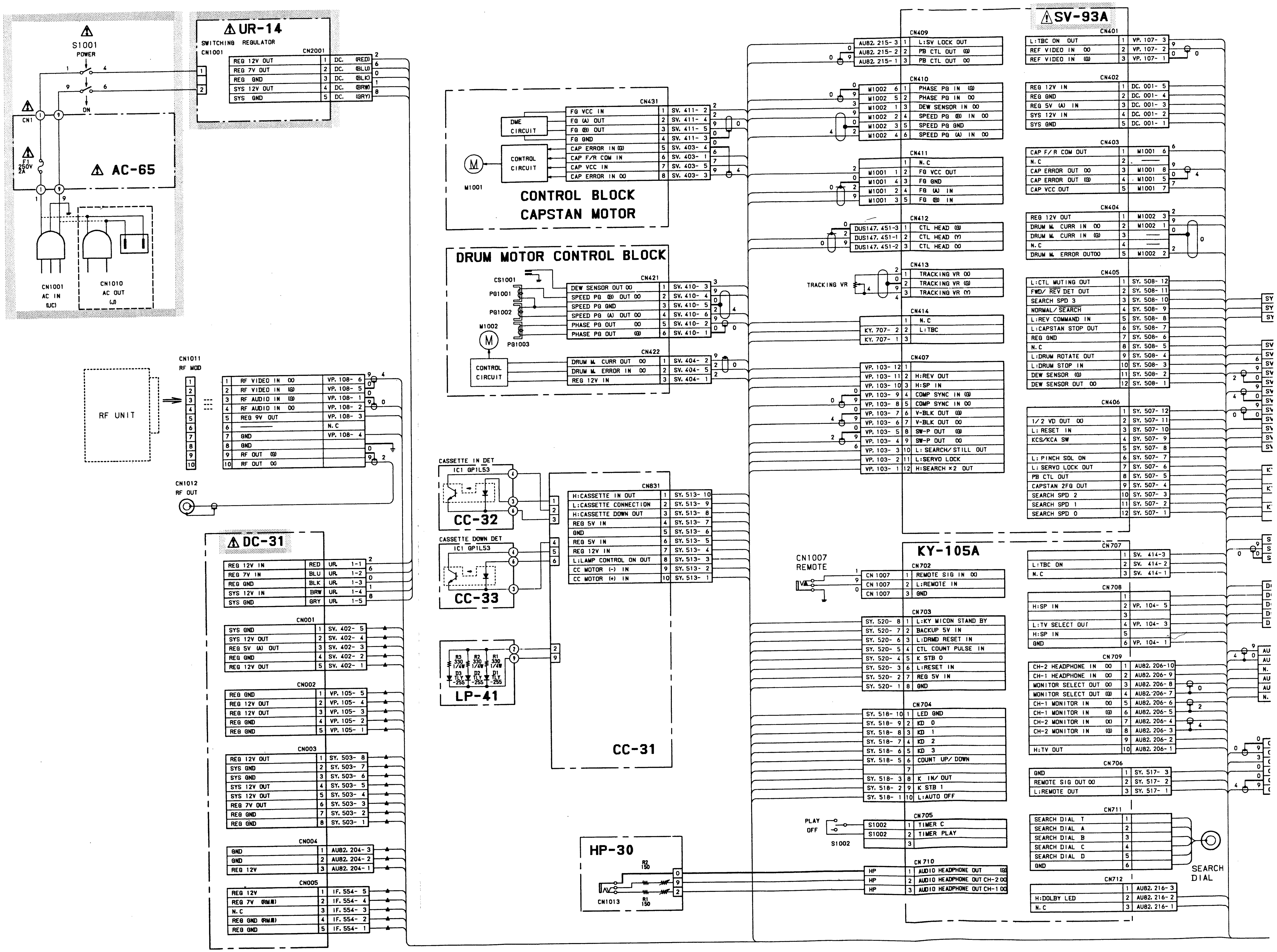
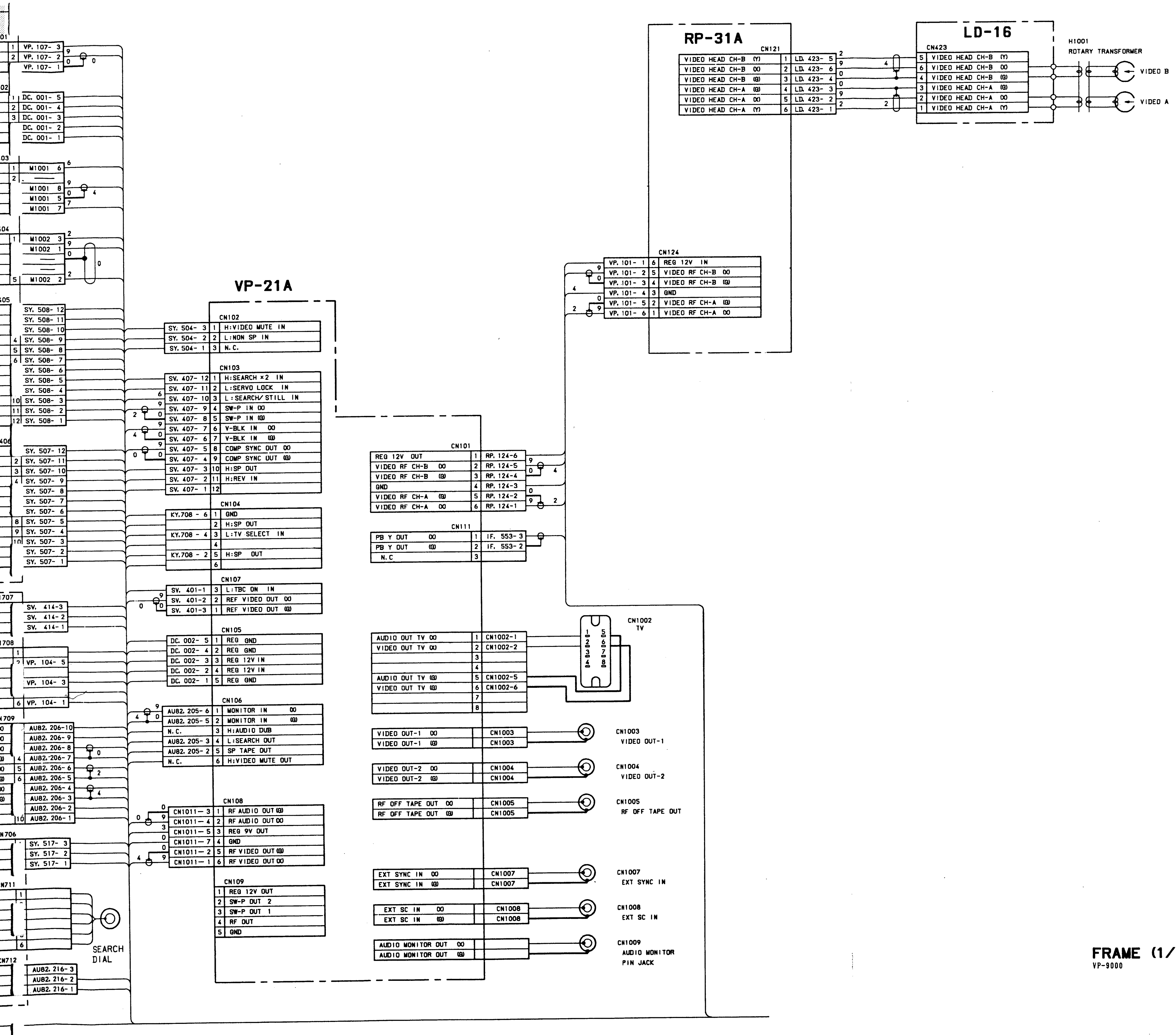
FRAME(1/2)


S1001
POWER
ON
CN1
F1
250V
2A
AC-65
CN1001
AC IN
(UC)
CN1010
AC OUT
(J)
UR-14
SWITCHING REGULATOR
CN1001
CN2001
CN1011
RF MOD
RF UNIT
CN1012
RF OUT
DC-31
CN001
CN002
CN003
CN004
CN005
M1001
DME CIRCUIT
CONTROL CIRCUIT
CN431
CONTROL BLOCK
CAPSTAN MOTOR
DRUM MOTOR CONTROL BLOCK
CS1001
PG1001
PG1002
M1002
PG1003
CN421
CN422
CASSETTE IN DET
IC1 GP1L53
CC-32
CASSETTE DOWN DET
IC1 GP1L53
CC-33
LP-41
CN831
CC-31
HP-30
CN1013
SV-93A
CN409
CN410
CN411
CN412
CN413
TRACKING VR
CN414
CN407
CN401
CN402
CN403
CN404
CN405
CN406
KY-105A
CN1007
REMOTE
CN702
CN703
CN704
PLAY
OFF
S1002
CN705
CN710
CN707
CN708
CN709
CN706
CN711
SEARCH DIAL
CN712


RP-31A
CN121
LD-16
CN423
H1001
ROTARY TRANSFORMER
VIDEO B
VIDEO A
VIDEO HEAD CH-B (Y)
VIDEO HEAD CH-B (X)
VIDEO HEAD CH-B (G)
VIDEO HEAD CH-A (G)
VIDEO HEAD CH-A (X)
VIDEO HEAD CH-A (Y)
CN124
REG 12V IN
VIDEO RF CH-B (X)
VIDEO RF CH-B (G)
GND
VIDEO RF CH-A (G)
VIDEO RF CH-A (X)
VP-21A
CN102
H:VIDEO MUTE IN
L:NON SP IN
N.C.
CN103
H:SEARCH ×2 IN
L:SERVO LOCK IN
L:SEARCH/STILL IN
SW-P IN (X)
SW-P IN (G)
V-BLK IN (X)
V-BLK IN (G)
COMP SYNC OUT (X)
COMP SYNC OUT (G)
H:SP OUT
H:REV IN
CN104
GND
H:SP OUT
L:TV SELECT IN
H:SP OUT
CN107
L:TBC ON IN
REF VIDEO OUT (X)
REF VIDEO OUT (X)
CN105
REG GND
REG GND
REG 12V IN
REG 12V IN
REG GND
CN106
MONITOR IN (X)
MONITOR IN (G)
H:AUDIO DUB
L:SEARCH OUT
SP TAPE OUT
H:VIDEO MUTE OUT
CN108
RF AUDIO OUT (G)
RF AUDIO OUT (X)
REG 9V OUT
GND
RF VIDEO OUT (G)
RF VIDEO OUT (X)
CN109
REG 12V OUT
SW-P OUT 2
SW-P OUT 1
RF OUT
GND
CN101
REG 12V OUT
VIDEO RF CH-B (X)
VIDEO RF CH-B (G)
GND
VIDEO RF CH-A (G)
VIDEO RF CH-A (X)
CN111
PB Y OUT (X)
PB Y OUT (G)
N.C
AUDIO OUT TV (X)
VIDEO OUT TV (X)
AUDIO OUT TV (G)
VIDEO OUT TV (G)
CN1002
TV
VIDEO OUT-1 (X)
VIDEO OUT-1 (G)
CN1003
VIDEO OUT-1
VIDEO OUT-2 (X)
VIDEO OUT-2 (G)
CN1004
VIDEO OUT-2
RF OFF TAPE OUT (X)
RF OFF TAPE OUT (G)
CN1005
RF OFF TAPE OUT
EXT SYNC IN (X)
EXT SYNC IN (G)
CN1007
EXT SYNC IN
EXT SC IN (X)
EXT SC IN (G)
CN1008
EXT SC IN
AUDIO MONITOR OUT (X)
AUDIO MONITOR OUT (G)
CN1009
AUDIO MONITOR
PIN JACK
SEARCH
DIAL

注意１：⚠印及び▒▒で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

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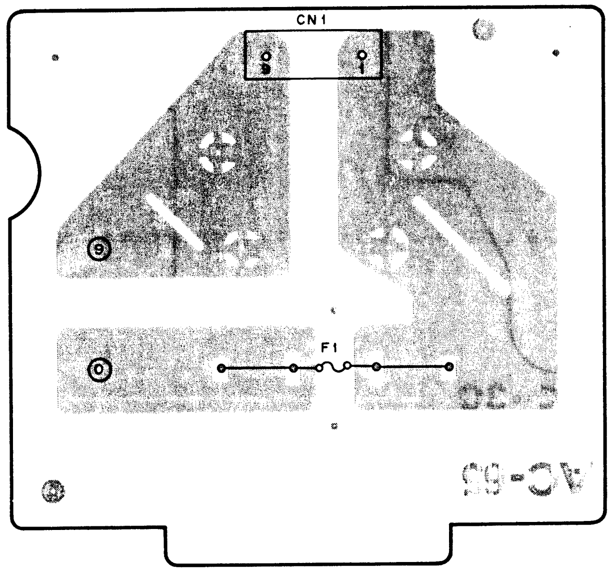
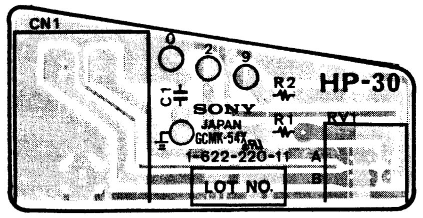
FRAME (1/2)
VP-9000

AC-65: AC INPUT
HP-30: HEADPHONES

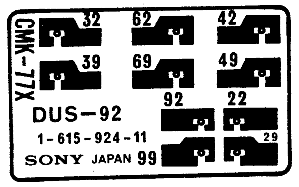


AC-65 -SOLDERING SIDE-
1-618-591-11
VO-9600
VP-9000
VP-7000


CN1
0
2
9
C1
R2
HP-30
SONY
JAPAN
GCMK-54X
R1
RV1
1-622-220-11
A
B
LOT NO.

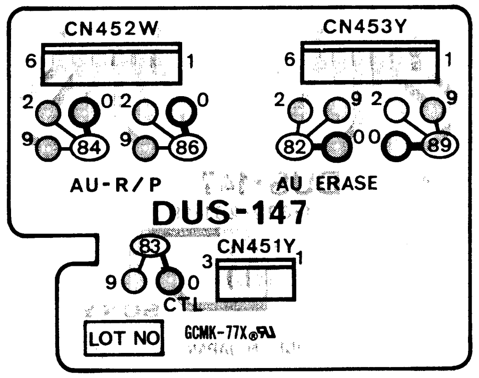
HP-30
-COMPONENT SIDE-
1-622-220-11
VO-9600
VP-9000
VP-7000

DUS-92:AUDIO CTL HEAD
DUS-147:AUDIO CTL HEAD
PT-9:REEL MOTOR DRIVER


CMK-77X
32
62
42
39
69
49
92
22
DUS-92
1-615-924-11
29
SONY JAPAN 99

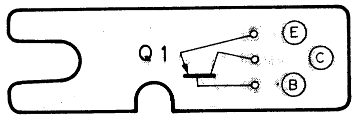
DUS-92

-SOLDERING SIDE-
1-615-924-11
VO-9600
VP-9000
VP-7000


CN452W
CN453Y
6
1
6
1
2
0
2
0
9
84
9
86
2
9
2
9
82
00
89
AU-R/P
AU ERASE
DUS-147
83
3
CN451Y
1
9
0
CTL
LOT NO
GCMK-77X

DUS-147

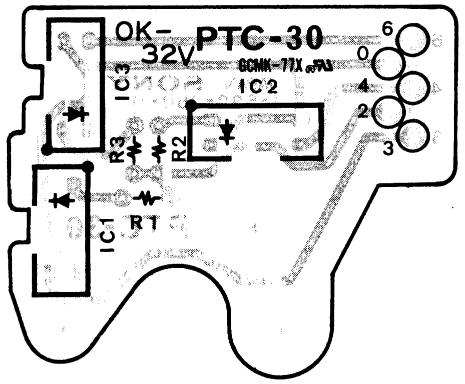
-COMPONENT SIDE-
1-622-261-11
VO-9600
VP-9000
VP-7000



PT-9

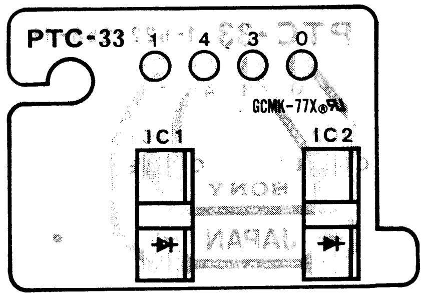
- SOLDERING SIDE -
1-605-018-11
VO-9600
VP-9000
VP-7000

EC-28: CTL HEAD
LM-13: THREADING MOTOR
PTC-30:SP,MISS REC. KCA DETECTOR
PTC-33:FR STOP DETECTOR
PTC-34:UNTHREADEND DETECTOR


OK-32V
PTC-30
GCMK-77X
IC3
IC2
6
0
4
2
3
R3
R2
R1
IC1

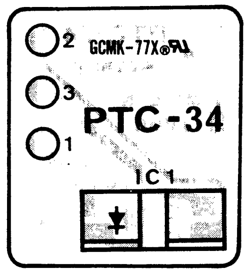
PTC-30

-COMPONENT SIDE-
1-622-260-11
VO-9600
VP-9000
VP-7000


PTC-33
1
4
3
0
GCMK-77X
IC1
IC2

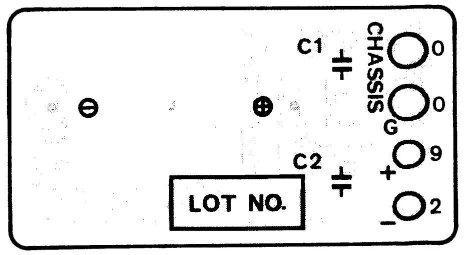
PTC-33

-SOLDERING SIDE-
1-622-258-11
VO-9600
VP-9000
VP-7000


2
GCMK-77X
3
1
PTC-34
IC1

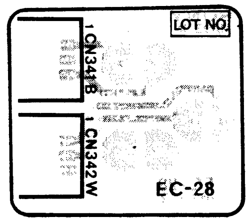
PTC-34

-COMPONENT SIDE-
1-622-259-11
VO-9600
VP-9000
VP-7000


C1
CHASSIS
G
0
0
9
2
C2
+
−
LOT NO.

LM-13

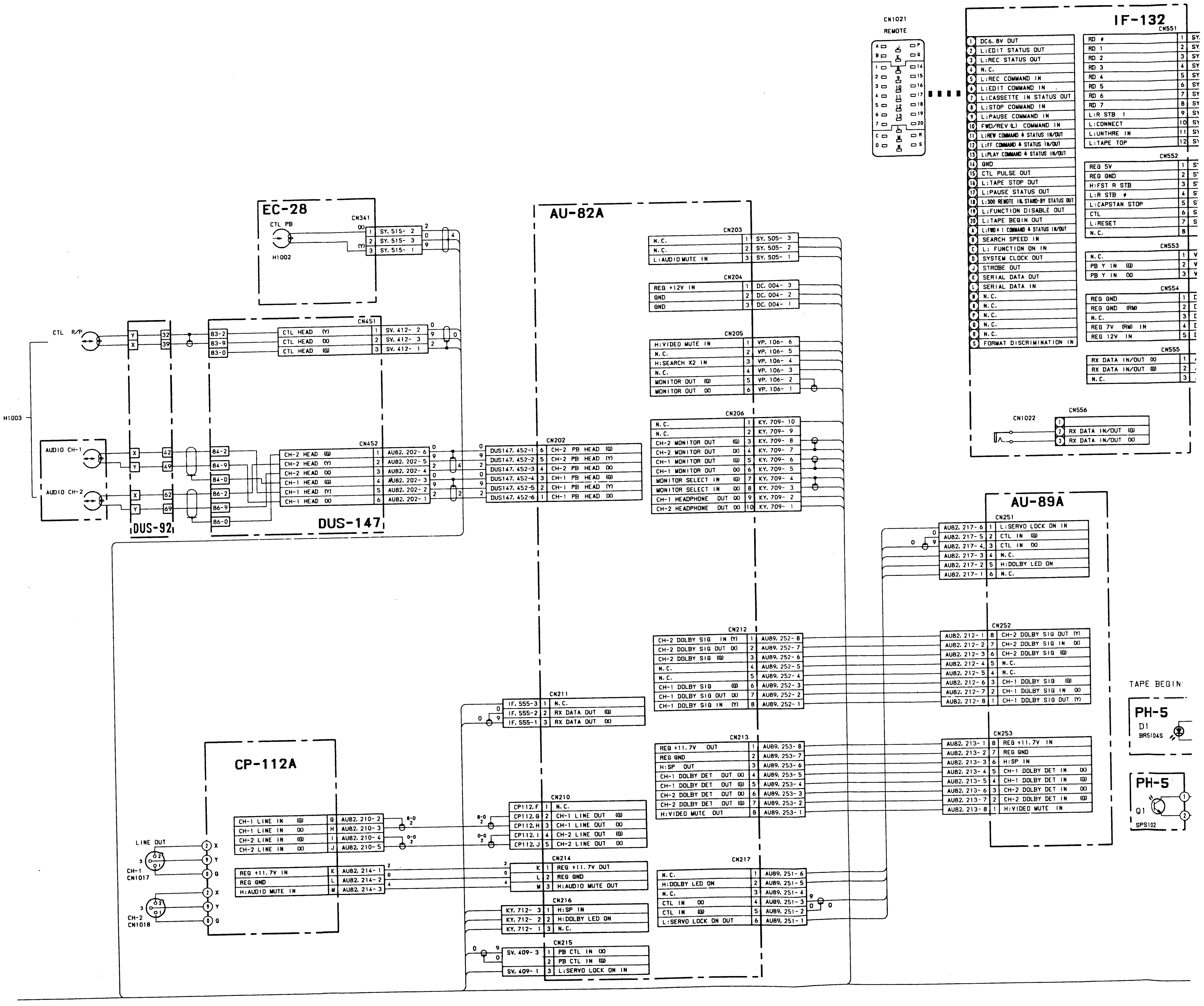
-COMPONENT SIDE-
1-618-600-11
VO-9600
VP-9000
VP-7000

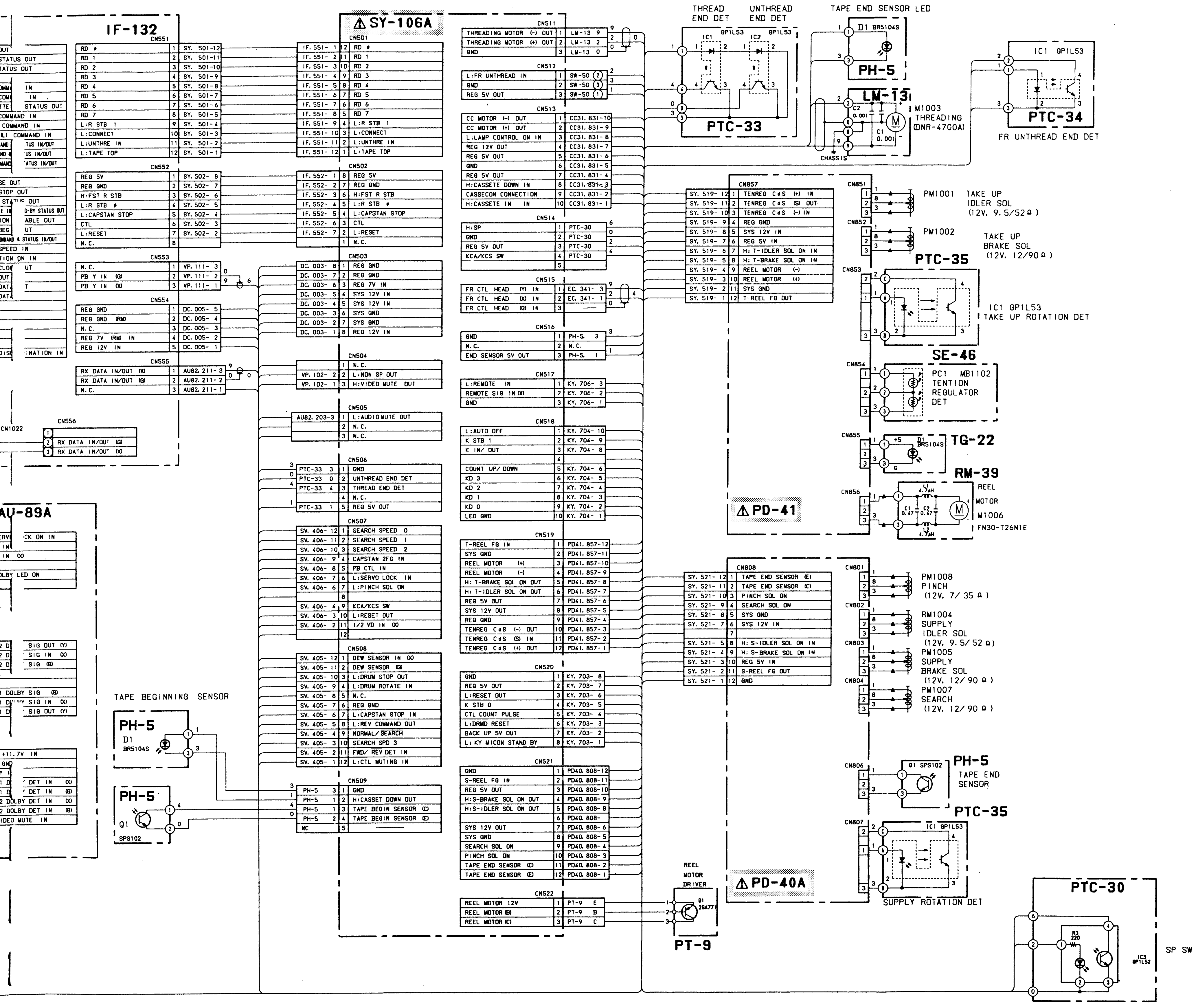

LOT NO.
CN341B
CN342W
EC-28

EC-28

-COMPONENT SIDE-
1-622-223-11
VO-9600
VP-9000
VP-7000

FRAME(2/2)


CN1021
REMOTE
IF-132
① DC6.8V OUT
② L:EDIT STATUS OUT
③ L:REC STATUS OUT
④ N.C.
⑤ L:REC COMMAND IN
⑥ L:EDIT COMMAND IN
⑦ L:CASSETTE IN STATUS OUT
⑧ L:STOP COMMAND IN
⑨ L:PAUSE COMMAND IN
⑩ FWD/REV (L) COMMAND IN
⑪ L:REW COMMAND & STATUS IN/OUT
⑫ L:FF COMMAND & STATUS IN/OUT
⑬ L:PLAY COMMAND & STATUS IN/OUT
⑭ GND
⑮ CTL PULSE OUT
⑯ L:TAPE STOP OUT
⑰ L:PAUSE STATUS OUT
⑱ L:300 REMOTE IN, STAND-BY STATUS OUT
⑲ L:FUNCTION DISABLE OUT
⑳ L:TAPE BEGIN OUT
A L:FWD×1 COMMAND & STATUS IN/OUT
B SEARCH SPEED IN
C L: FUNCTION ON IN
D SYSTEM CLOCK OUT
J STROBE OUT
K SERIAL DATA OUT
L SERIAL DATA IN
M N.C.
N N.C.
P N.C.
Q N.C.
R N.C.
S FORMAT DISCRIMINATION IN
CN551
RD 0 1
RD 1 2
RD 2 3
RD 3 4
RD 4 5
RD 5 6
RD 6 7
RD 7 8
L:R STB 1 9
L:CONNECT 10
L:UNTHRE IN 11
L:TAPE TOP 12
CN552
REG 5V 1
REG GND 2
H:FST R STB 3
L:R STB 0 4
L:CAPSTAN STOP 5
CTL 6
L:RESET 7
N.C. 8
CN553
N.C. 1
PB Y IN (G) 2
PB Y IN (X) 3
CN554
REG GND 1
REG GND (RM) 2
N.C. 3
REG 7V (RM) IN 4
REG 12V IN 5
CN555
RX DATA IN/OUT (X) 1
RX DATA IN/OUT (G) 2
N.C. 3
CN1022
CN556
RX DATA IN/OUT (G) 2
RX DATA IN/OUT (X) 3
EC-28
CTL PB
H1002
CN341
(X) 1 SY.515- 2
2 SY.515- 3
(Y) 3 SY.515- 1
CTL R/P
H1003
AUDIO CH-1
AUDIO CH-2
DUS-92
Y 32
X 39
X 42
Y 49
X 62
Y 69
DUS-147
83-2
83-9
83-0
84-2
84-9
84-0
86-2
86-9
86-0
CN451
CTL HEAD (Y) 1 SV.412- 2
CTL HEAD (X) 2 SV.412- 3
CTL HEAD (G) 3 SV.412- 1
CN452
CH-2 HEAD (G) 1 AU82.202- 6
CH-2 HEAD (Y) 2 AU82.202- 5
CH-2 HEAD (X) 3 AU82.202- 4
CH-1 HEAD (G) 4 AU82.202- 3
CH-1 HEAD (Y) 5 AU82.202- 2
CH-1 HEAD (X) 6 AU82.202- 1
AU-82A
CN202
DUS147.452-1 6 CH-2 PB HEAD (G)
DUS147.452-2 5 CH-2 PB HEAD (Y)
DUS147.452-3 4 CH-2 PB HEAD (X)
DUS147.452-4 3 CH-1 PB HEAD (G)
DUS147.452-5 2 CH-1 PB HEAD (Y)
DUS147.452-6 1 CH-1 PB HEAD (X)
CN203
N.C. 1 SY.505- 3
N.C. 2 SY.505- 2
L:AUDIO MUTE IN 3 SY.505- 1
CN204
REG +12V IN 1 DC.004- 3
GND 2 DC.004- 2
GND 3 DC.004- 1
CN205
H:VIDEO MUTE IN 1 VP.106- 6
N.C. 2 VP.106- 5
H:SEARCH X2 IN 3 VP.106- 4
N.C. 4 VP.106- 3
MONITOR OUT (G) 5 VP.106- 2
MONITOR OUT (X) 6 VP.106- 1
CN206
N.C. 1 KY.709- 10
N.C. 2 KY.709- 9
CH-2 MONITOR OUT (G) 3 KY.709- 8
CH-2 MONITOR OUT (X) 4 KY.709- 7
CH-1 MONITOR OUT (G) 5 KY.709- 6
CH-1 MONITOR OUT (X) 6 KY.709- 5
MONITOR SELECT IN (G) 7 KY.709- 4
MONITOR SELECT IN (X) 8 KY.709- 3
CH-1 HEADPHONE OUT (X) 9 KY.709- 2
CH-2 HEADPHONE OUT (X) 10 KY.709- 1
CN212
CH-2 DOLBY SIG IN (Y) 1 AU89.252- 8
CH-2 DOLBY SIG OUT (X) 2 AU89.252- 7
CH-2 DOLBY SIG (G) 3 AU89.252- 6
N.C. 4 AU89.252- 5
N.C. 5 AU89.252- 4
CH-1 DOLBY SIG (G) 6 AU89.252- 3
CH-1 DOLBY SIG OUT (X) 7 AU89.252- 2
CH-1 DOLBY SIG IN (Y) 8 AU89.252- 1
CN211
IF.555-3 1 N.C.
IF.555-2 2 RX DATA OUT (G)
IF.555-1 3 RX DATA OUT (X)
CN213
REG +11.7V OUT 1 AU89.253- 8
REG GND 2 AU89.253- 7
H:SP OUT 3 AU89.253- 6
CH-1 DOLBY DET OUT (X) 4 AU89.253- 5
CH-1 DOLBY DET OUT (G) 5 AU89.253- 4
CH-2 DOLBY DET OUT (X) 6 AU89.253- 3
CH-2 DOLBY DET OUT (G) 7 AU89.253- 2
H:VIDEO MUTE OUT 8 AU89.253- 1
CN210
CP112.F 1 N.C.
CP112.G 2 CH-1 LINE OUT (G)
CP112.H 3 CH-1 LINE OUT (X)
CP112.I 4 CH-2 LINE OUT (G)
CP112.J 5 CH-2 LINE OUT (X)
CN214
K 1 REG +11.7V OUT
L 2 REG GND
M 3 H:AUDIO MUTE OUT
CN216
KY.712- 3 1 H:SP IN
KY.712- 2 2 H:DOLBY LED ON
KY.712- 1 3 N.C.
CN215
SV.409- 3 1 PB CTL IN (X)
2 PB CTL IN (G)
SV.409- 1 3 L:SERVO LOCK ON IN
CN217
N.C. 1 AU89.251- 6
H:DOLBY LED ON 2 AU89.251- 5
N.C. 3 AU89.251- 4
CTL IN (X) 4 AU89.251- 3
CTL IN (G) 5 AU89.251- 2
L:SERVO LOCK ON OUT 6 AU89.251- 1
CP-112A
CH-1 LINE IN (G) G AU82.210- 2
CH-1 LINE IN (X) H AU82.210- 3
CH-2 LINE IN (G) I AU82.210- 4
CH-2 LINE IN (X) J AU82.210- 5
REG +11.7V IN K AU82.214- 1
REG GND L AU82.214- 2
H:AUDIO MUTE IN M AU82.214- 3
LINE OUT
CH-1
CN1017
CH-2
CN1018
X
Y
G
AU-89A
CN251
AU82.217- 6 1 L:SERVO LOCK ON IN
AU82.217- 5 2 CTL IN (G)
AU82.217- 4 3 CTL IN (X)
AU82.217- 3 4 N.C.
AU82.217- 2 5 H:DOLBY LED ON
AU82.217- 1 6 N.C.
CN252
AU82.212- 1 8 CH-2 DOLBY SIG OUT (Y)
AU82.212- 2 7 CH-2 DOLBY SIG IN (X)
AU82.212- 3 6 CH-2 DOLBY SIG (G)
AU82.212- 4 5 N.C.
AU82.212- 5 4 N.C.
AU82.212- 6 3 CH-1 DOLBY SIG (G)
AU82.212- 7 2 CH-1 DOLBY SIG IN (X)
AU82.212- 8 1 CH-1 DOLBY SIG OUT (Y)
CN253
AU82.213- 1 8 REG +11.7V IN
AU82.213- 2 7 REG GND
AU82.213- 3 6 H:SP IN
AU82.213- 4 5 CH-1 DOLBY DET IN (X)
AU82.213- 5 4 CH-1 DOLBY DET IN (G)
AU82.213- 6 3 CH-2 DOLBY DET IN (X)
AU82.213- 7 2 CH-2 DOLBY DET IN (G)
AU82.213- 8 1 H:VIDEO MUTE IN
TAPE BEGIN
PH-5
D1
BR5104S
PH-5
Q1
SPS102


IF-132
⚠ SY-106A
AU-89A
THREAD END DET
UNTHREAD END DET
TAPE END SENSOR LED
PTC-33
PH-5
LM-13
M1003 THREADING (DNR-4700A)
CHASSIS
PTC-34
FR UNTHREAD END DET
PM1001 TAKE UP IDLER SOL (12V, 9.5/52Ω)
PM1002 TAKE UP BRAKE SOL (12V, 12/90Ω)
PTC-35
IC1 GP1L53 TAKE UP ROTATION DET
SE-46
PC1 MB1102 TENTION REGULATOR DET
TG-22
RM-39
REEL MOTOR M1006 FN30-T26N1E
⚠ PD-41
PM1008 PINCH (12V, 7/35Ω)
RM1004 SUPPLY IDLER SOL (12V, 9.5/52Ω)
PM1005 SUPPLY BRAKE SOL (12V, 12/90Ω)
PM1007 SEARCH (12V, 12/90Ω)
PH-5 TAPE END SENSOR
PTC-35
SUPPLY ROTATION DET
⚠ PD-40A
REEL MOTOR DRIVER
PT-9
TAPE BEGINNING SENSOR
PH-5
PTC-30
SP SW

FRAME (2/2)
VP-9000

注意１：⚠印及び░░で囲まれた部品は安全性を維持するために重要な部品です．従って交換する時は必ず指定の部品を使って下さい．

NOTE;

The shaded and ⚠-marked components are critical to safety.
Replace only with same components as specified.

SECTION 15

SPARE PARTS AND FIXTURE

15-1. PARTS INFORMATION

(1)

> The shaded and ⚠ -marked components are critical to safety.
> Replace only with same components as specified.

(2) Replacement Parts supplied from the Sony Parts Center will sometimes have a different shape from the original parts. This is due to "improved parts and/or engineering changes" or "standardization of genuine parts".
This manual's exploded views and electrical spare parts list indicate the part numbers of "the standardized genuine parts at the present". Regarding engineering part changes by the engineering department, refer to Sony service bulletins and service manual supplements.

(3) The parts marked with "s" in the SP column of the exploded views and electrical spare parts lists are normally stocked for replacement purposes. The parts marked with "o" in the SP column are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

(4) Items with no part number and/or no description are not stocked because they are seldom required for routine service.

(5) (T) after a spring description is shown on the exploded views in order to indicate the number of spring turns required for the use. (Example)
Spring, tension (24T); This spring must be cut at its 24th turn for actual use.

15-2. EXPLODED VIEW

- Exploded vews are composed of the following blocks.

(1) Reel Chassis (1), Supply Side
    S Reel Table
    S Tension Regulator Arm
    Search Solenoid
    S Main Brake
    Reel Motor

(2) Reel Chassis (2), Take-up Side
    T Reel Table
    FF/REW Idler
    T Main brake
    T Tension Regulator Arm
    R Brake

(3) Reel Chassis (3), Back Side
    S Idler Solenoid
    T Idler Solenoid
    FF/REW Idler Pulley
    S Brake Solenoid
    T Brake Solenoid

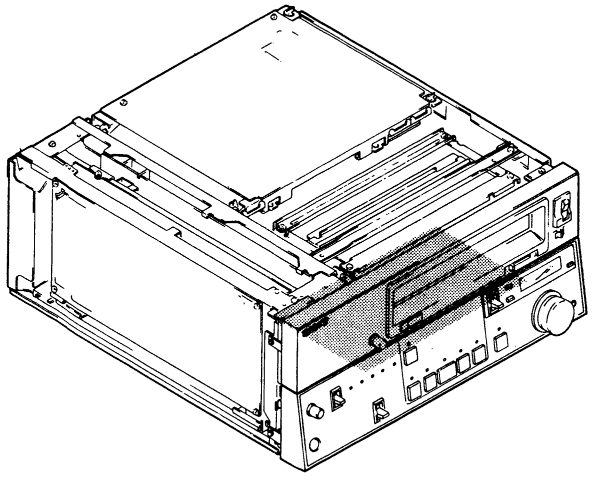
(4) Threading Ring Block
    Threading Ring
    Gear Box
    T Correction Guide
    Tape Beginning Sensor
    FR Detector

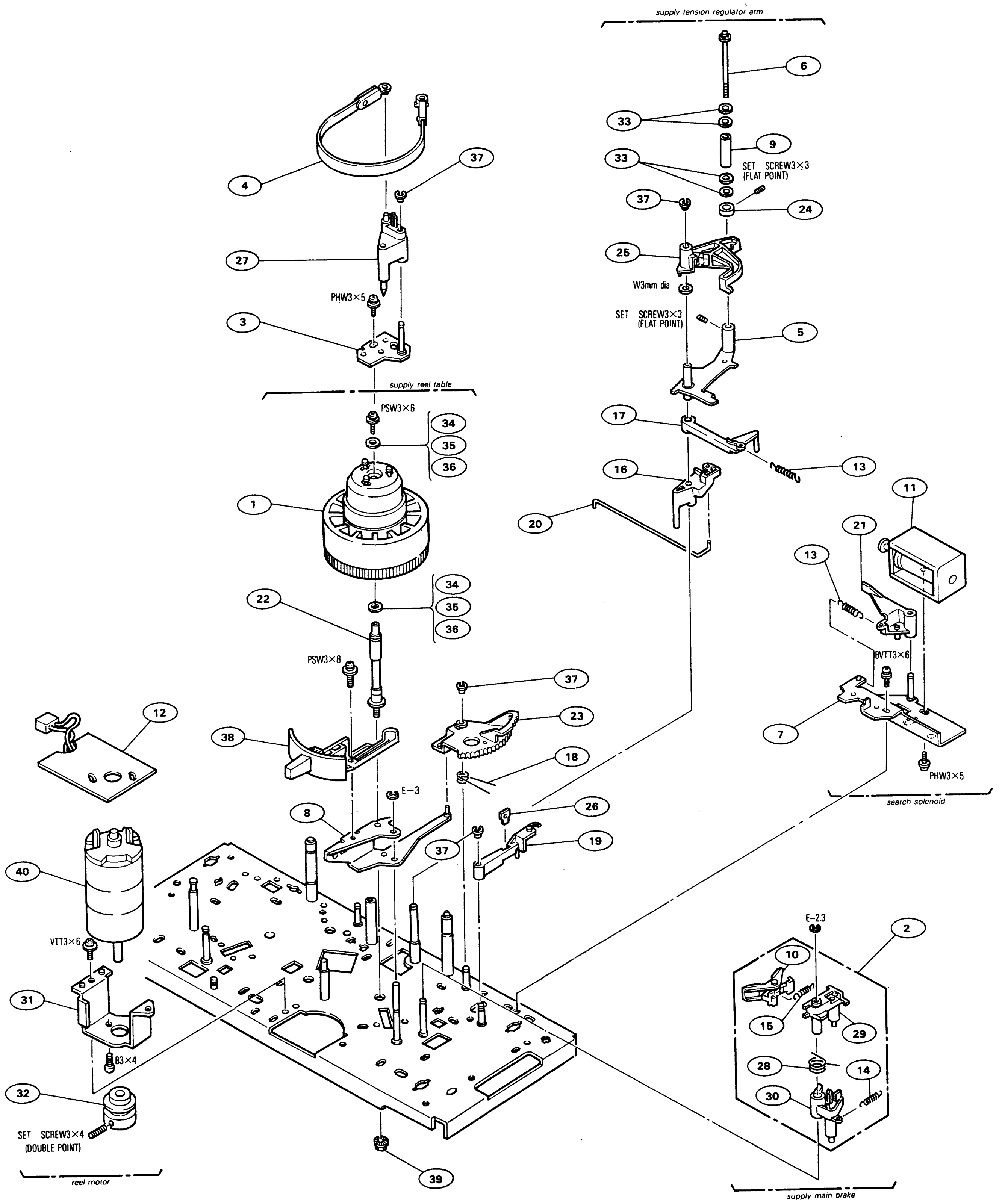
(5) Threading Arm
    T Drawer Arm
    S Drawer Arm
    S Drawer Roller
    Drawer Lever

(6) Drum and Capstan Blocks
    Head Drum
    Capstan Motor
    Audio/ CTL Head
    Tape Guides

- (7) Erase Head Base
  - Erase Head Base
  - S Guard
- (8) Pinch Lever and Pinch Solenoid Blocks
  - Pinch Lever
  - Pinch Roller Pre-set Cam
  - Pinch Solenoid
- (9) Cassette-up Compartment Block
- (10) Function Control
  - Function Control Board
- (11) Front Panel Block
  - Ornamental Front Panel
  - Key Top
- (12) Chassis Block (1), Left Side
  - Printed Circuit Boards
- (13) Chassis Block (2), Back Side
  - Printed Circuit Boards
  - Connector Panel for Video Signal
- (14) Level Control Panel
  - Meter Panel
  - Headphone Block
- (15) Switching Regulator
- (16) Connector Panel for Audio Signal
- (17) Chassis Block (3), Bottom
  - Printed Circuit Boards
- (18) Ornamental Panel Block
  - U Case
  - Bottom Plate

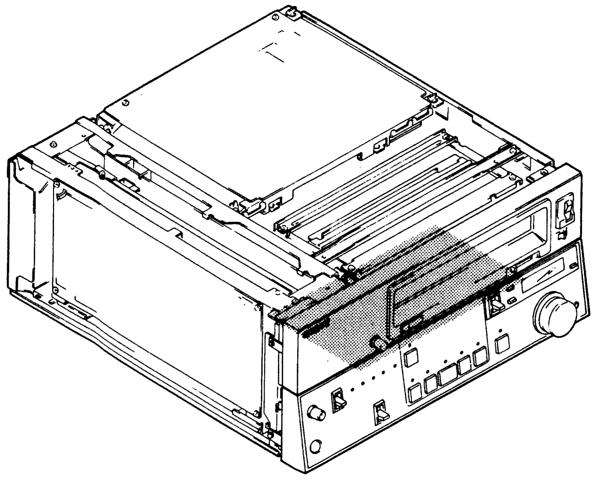
REEL CHASSIS (1), SUPPLY SIDE

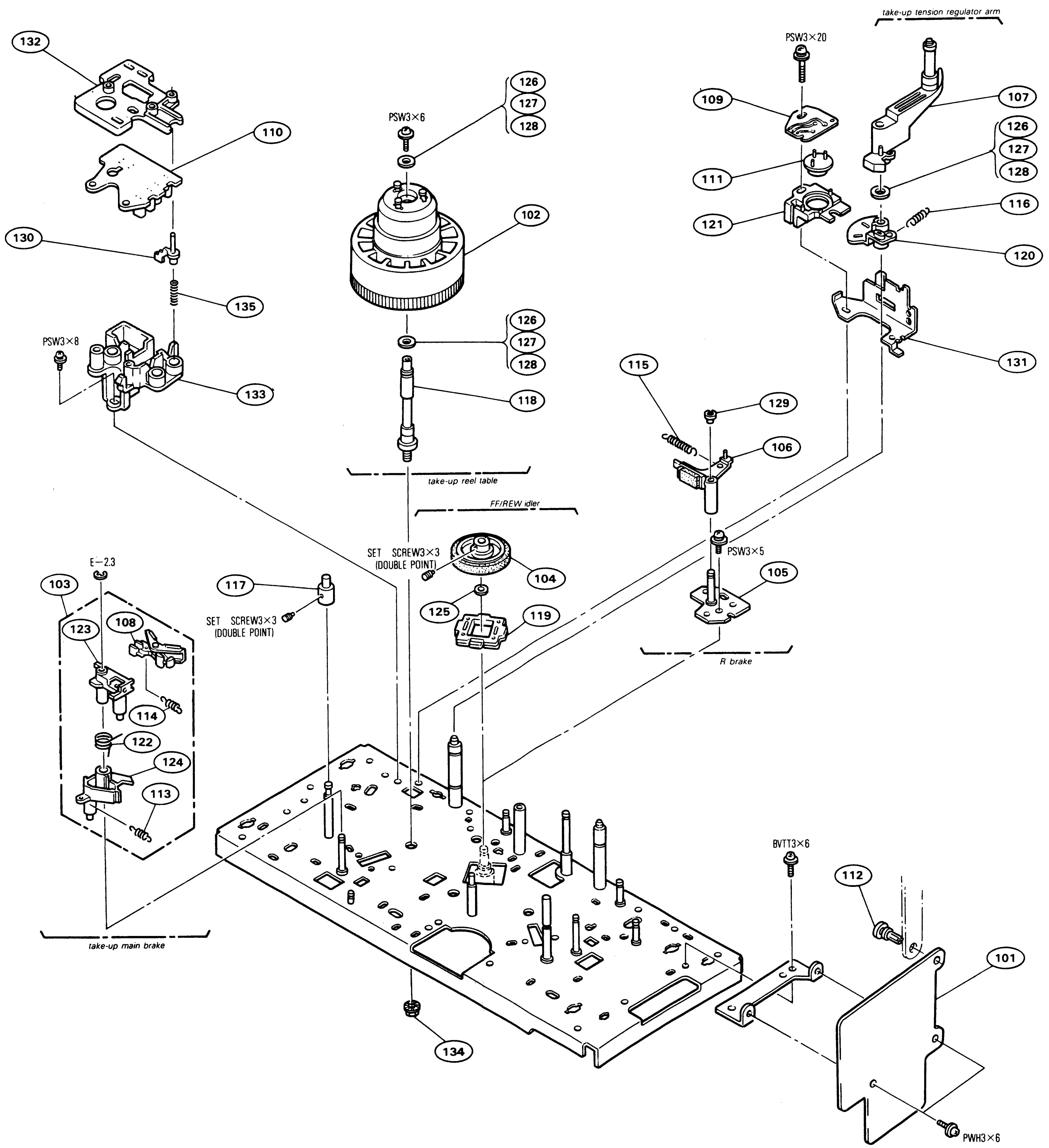



supply tension regulator arm
6
33
9
33
SET SCREW3×3 (FLAT POINT)
37
24
25
W3mm dia
SET SCREW3×3 (FLAT POINT)
5
17
13
16
20
11
21
13
BVTT3×6
7
PHW3×5
search solenoid
4
37
27
PHW3×5
3
supply reel table
PSW3×6
34
35
36
1
34
35
36
22
PSW3×8
37
23
38
18
12
E-3
26
8
19
37
40
VTT3×6
31
B3×4
32
SET SCREW3×4 (DOUBLE POINT)
reel motor
39
E-2.3
2
10
15
29
28
14
30
supply main brake

No.	Part No.	SP	Description
1	A-6739-016-C	s	TABLE ASSY, REEL
2	A-6741-038-B	s	BRAKE ASSY, MAIN
3	X-3668-706-0	o	BASE ASSY, S TENSION REGULATOR
4	X-3668-707-0	s	BAND ASSY, S TENSION REGULATOR
5	X-3668-708-0	s	ARM(A)ASSY, S TENSION REGULATOR
6	X-3668-709-0	s	SHAFT (1) ASSY, ROLLER
7	X-3668-717-0	o	BASE ASSY, SEARCH
8	X-3668-725-0	o	ARM (C) ASSY, SKEW
9	X-3668-727-0	s	GUIDE ASS'Y, TAPE
10	X-3668-749-0	s	HOLDER ASSY, LINING
11	1-454-417-31	s	SOLENOID, PLUNGER
12	1-618-873-11	o	PRINTED CIRCUIT BOARD, RM-39
13	3-534-238-XX	s	SPRING, TENSION (23T)
14	3-535-369-XX	s	SPRING, TENSION (12T)
15	3-548-124-00	s	SPRING, TENSION
16	3-668-787-02		ARM, S DETECTION
17	3-668-794-00	o	ARM (A), SKEW
18	3-668-795-00	s	SPRING
19	3-668-797-00	o	ARM, SKEW LOCK
20	3-668-804-00	s	LINK, DETECTION TENSION
21	3-668-808-00	s	ARM, FWD, SEARCH
22	3-668-827-00	o	SHAFT (S), REEL
23	3-668-835-00	s	ARM (B), SKEW
24	3-668-874-00	s	FLANGE (1), LOWER
25	3-668-936-00	s	ARM (B), S TENSION REGULATOR
26	3-668-937-00	s	CLAW, SKEW LOCK
27	3-668-939-00	o	ARM, BAND LOCK
28	3-668-966-00	s	SPRING
29	3-668-970-00	o	ARM, BRAKE
30	3-668-971-00	o	ARM, BRAKE RELEASE
31	3-672-743-01	o	BRACKET, MOTOR
32	3-672-744-01	s	PULLEY (R), MOTOR
33	3-701-438-01	s	WASHER, POLY 2.5MM DIA., 0.25T
34	3-701-444-01	s	WASHER, POLY 6MM DIA., 0.13T
35	3-701-444-11	s	WASHER, POLY 6MM DIA., 0.25T
36	3-701-444-21	s	WASHER, POLY 6MM DIA., 0.50T
37	3-703-074-00	s	CAP 3, SHAFT
38	3-718-337-01	s	LEVER, SKEW
39	4-304-749-00	o	NUT, FLANGE
40	8-835-178-01	s	MOTOR, DC FN30-T26N1E

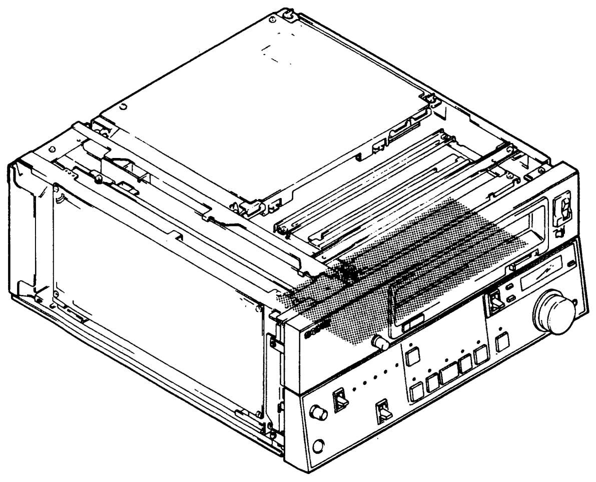
REEL CHASSIS (2), TAKE-UP SIDE

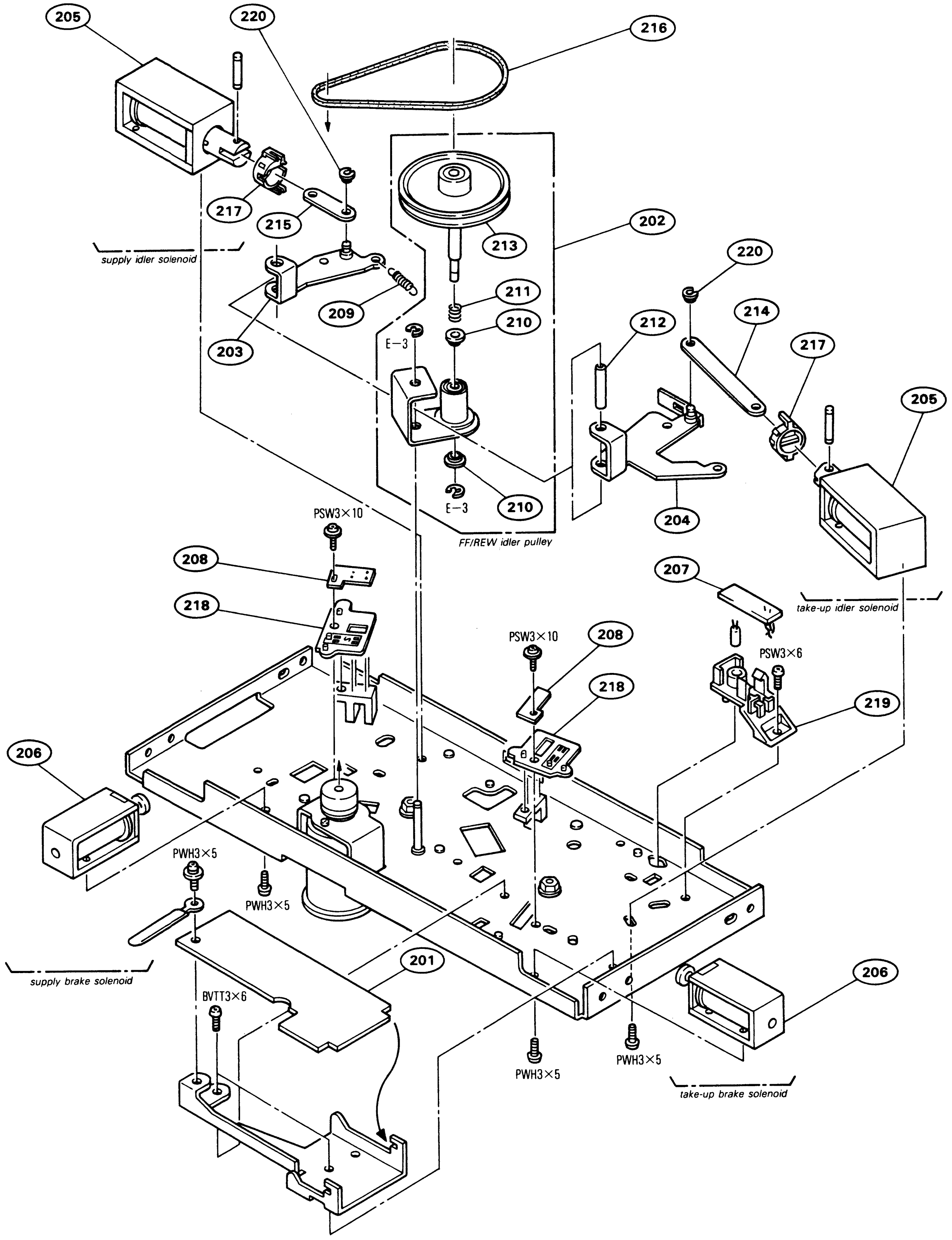



132
110
130
135
PSW3×8
133
126
127
128
PSW3×6
102
126
127
128
118
take-up reel table
FF/REW idler
SET SCREW3×3 (DOUBLE POINT)
104
125
119
117
SET SCREW3×3 (DOUBLE POINT)
E-2.3
103
123
108
114
122
124
113
take-up main brake
134
take-up tension regulator arm
PSW3×20
109
107
126
127
128
111
121
116
120
131
115
129
106
PSW3×5
105
R brake
BVTT3×6
112
101
PWH3×6

No.	Part No.	SP	Description
101	A-6725-569-A	o	MOUNTED CIRCUIT BOARD, PD-40
102	A-6739-016-C	s	TABLE ASS'Y, REEL
103	A-6741-038-B	s	BRAKE ASS'Y, MAIN
104	X-3646-026-0	s	IDLER ASS'Y, FF
105	X-3668-705-0	o	BASE ASS'Y, R BRAKE
106	X-3668-737-0	s	BRAKE ASS'Y, R
107	X-3668-738-0	s	ARM ASS'Y, T TENSION REGULATOR
108	X-3668-749-0	s	HOLDER ASS'Y, LINING
109	1-618-599-11	o	PRINTED CIRCUIT BOARD, SE-46
110	1-622-260-11	o	PRINTED CIRCUIT BOARD, PTC-30
111	1-806-232-21	s	DETECTOR MB-1102/S.N
112	2-382-416-01	o	SUPPORT, PC
113	3-535-369-XX	s	SPRING, TENSION (12T)
114	3-548-124-00	s	SPRING, TENSION
115	3-549-861-00	s	SPRING, TENSION
116	3-642-427-00	s	SPRING, TENSION
117	3-668-031-00	o	RETAINER (UPPER), CASSETTE
118	3-668-766-00	o	SHAFT (T), REEL
119	3-668-780-00	o	CUSHION, IDLER
120	3-668-788-00	s	ART, T DETECTION
121	3-668-789-00	o	HOLDER, BRIDGE, PHOTO
122	3-668-966-00	s	SPRING
123	3-668-970-00	o	ARM, BRAKE
124	3-668-971-00	o	ARM, BRAKE RELEASE
125	3-701-441-21	s	WASHER, POLY 4MM DIA., 0.50T
126	3-701-444-01	s	WASHER, POLY 6MM DIA., 0.13T
127	3-701-444-11	s	WASHER, POLY 6MM DIA., 0.25T
128	3-701-444-21	s	WASHER, POLY 6MM DIA., 0.50T
129	3-703-074-00	s	CAP 3, SHAFT
130	3-718-307-01	s	ACTUATOR, TRC
131	3-718-326-01	o	STOPPER (SP)
132	3-718-342-01	o	TRC-BOX (UPPER)
133	3-718-343-01	o	TRC-BOX (LOWER)
134	4-304-749-00	o	NUT, FLANGE
135	4-858-779-00	s	SPRING, COMPRESSION

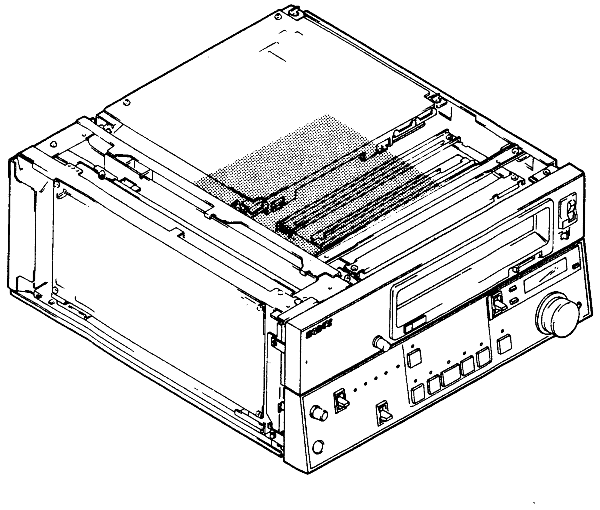
REEL CHASSIS (3), BACK SIDE

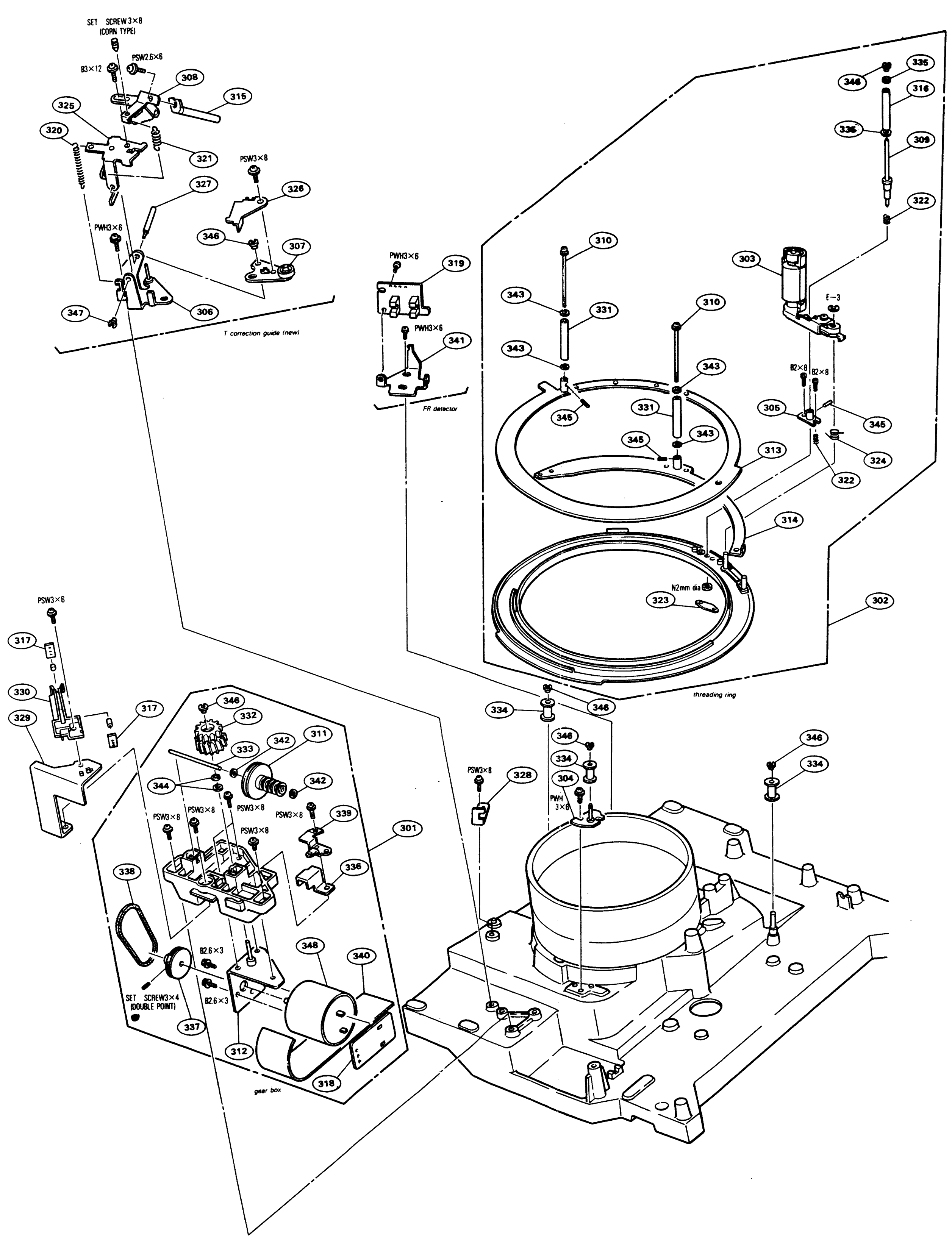



205
220
216
217
215
supply idler solenoid
209
203
202
213
211
210
E-3
E-3
210
FF/REW idler pulley
220
212
214
217
205
204
PSW3×10
208
218
207
take-up idler solenoid
PSW3×10
208
218
PSW3×6
219
206
PWH3×5
PWH3×5
supply brake solenoid
201
BVTT3×6
PWH3×5
PWH3×5
206
take-up brake solenoid

No.	Part No.	SP	Description
201	A-6725-570-A	o	MOUNTED CIRCUIT BOARD, PD-41
202	A-6740-069-B	s	PULLEY BLOCK, ASS'Y, IDLER
203	X-3668-703-0	o	LEVER ASS'Y, S
204	X-3668-704-0	o	LEVER ASS'Y, T
205	1-454-415-11	s	SOLENOID, PLUNGER
206	1-454-417-31	s	SOLENOID, PLUNGER
207	1-618-597-11	o	PRINTED CIRCUIT BOARD, TG-22
208	1-622-218-11	o	PRINTED CIRCUIT BOARD, PTC-35
209	3-437-452-00	s	SPRING, TENSION
210	3-650-512-00	s	COLLAR, (A)
211	3-651-572-00	s	SPRING, COMPRESSION
212	3-668-048-11	o	SPACER (DIA. 4x20)
213	3-668-772-00	s	SHAFT, IDLER PULLEY
214	3-668-781-00	o	JOINT, T
215	3-668-782-00	o	JOINT, S
216	3-668-785-00	s	BELT (67x2)
217	3-668-826-00	s	RETAINER, PIN, SOLENOID
218	3-668-828-02	o	BRACKET, PS
219	3-672-752-01	o	HOLDER, LED
220	3-703-074-00	s	CAP 3, SHAFT

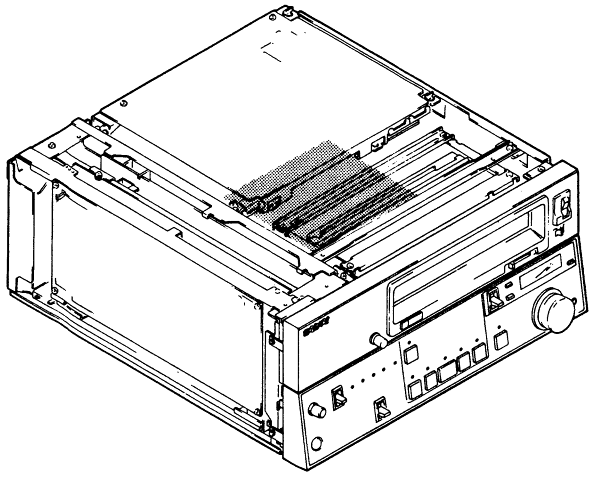
THREADING RING BLOCK

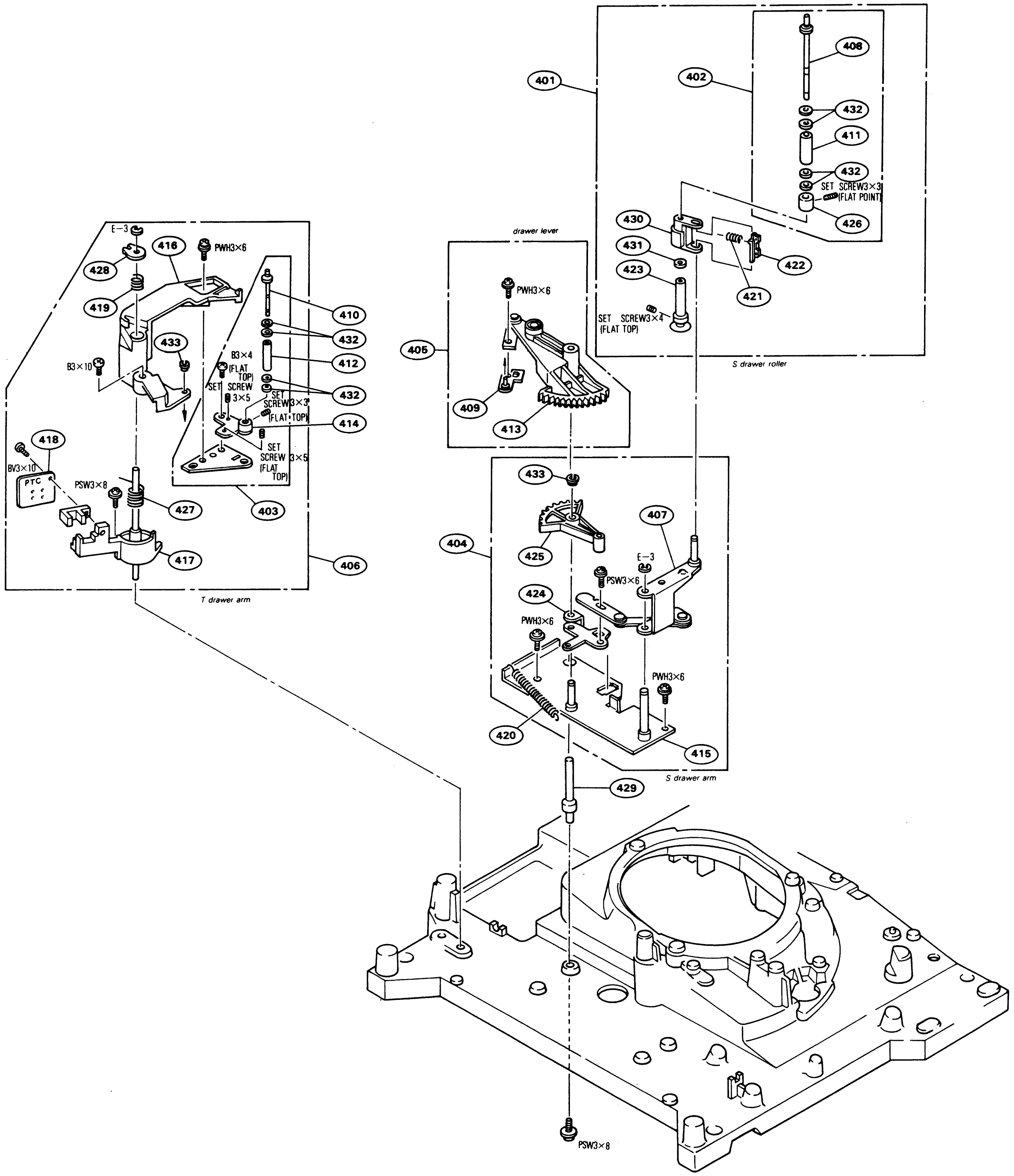



SET SCREW3×8 (CORN TYPE)
PSW2.6×6
B3×12
306
315
325
320
321
PSW3×8
327
326
346
307
PWH3×6
347
306
T correction guide (new)
PWH3×6
319
PWH3×6
341
FR detector
348
335
316
336
309
322
310
303
343
331
310
343
343
E-3
B2×8
B2×8
305
345
331
343
345
345
324
313
322
314
N2mm dia
323
302
threading ring
PSW3×6
317
330
329
317
346
332
342
311
333
344
342
PSW3×8
PSW3×8
PSW3×8
PSW3×8
PSW3×8
339
301
336
338
B2.6×3
348
340
SET SCREW3×4 (DOUBLE POINT)
B2.6×3
337
312
318
gear box
334
346
346
334
304
PSW3×8
328
PWH 3×6
346
334

No.	Part No.	SP	Description
301	A-6750-219-A	s	BOX BLOCK ASS'Y, GEAR
302	A-6750-220-A	s	RING BLOCK ASS'Y, MAIN
303	A-6750-226-A	s	PINCH ROLLER BLOCK ASS'Y
304	X-3668-719-0	o	ROLLER ASS'Y, RING
305	X-3668-720-0	o	BASE ASS'Y, ROLLER, PRECEDING
306	X-3668-721-0	o	CHASSIS ASS'Y, GUIDE
307	X-3668-722-0	s	LOCKER ASS'Y, FR
308	X-3668-723-2	o	ARM ASS'Y, GUIDE, T CORRECTION
309	X-3668-724-3	s	SHAFT ASS'Y, ROLLER, PRECEDING
310	X-3668-733-0	s	SHAFT ASS'Y, SR GUIDE
311	X-3668-743-0	s	PULLEY ASS'Y, WORM
312	X-3672-704-1	o	BRACKET ASS'Y, MOTOR
313	X-3672-710-1	o	RING (UPPER) ASS'Y, SUB
314	X-3672-711-1	o	RING (LOWER) ASS'Y, SUB
315	X-3672-718-2	s	SHAFT ASS'Y, GUIDE
316	X-3718-303-1	s	GUIDE ASS'Y, (T), TAPE
317	1-603-737-00	o	PRINTED CIRCUIT BOARD, PH-5
318	1-618-600-11	o	PRINTED CIRCUIT BOARD, LM-13
319	1-622-258-11	o	PRINTED CIRCUIT BOARD, PTC-33
320	3-143-067-00	s	SPRING, TENSION
321	3-437-289-00	s	SPRING, TENSION
322	3-634-196-00	s	SPRING
323	3-668-743-00	o	NUT, PLATE, ROLLER, PRECEDING
324	3-668-745-00	s	SPRING
325	3-668-749-02	o	ARM (A), GUIDE, T CORRECTION
326	3-668-753-00	o	PLATE, ADJUSTMENT, FR LOCKER
327	3-668-754-00	o	SHAFT, GUIDE ARM, T CORRECTION
328	3-668-755-00	o	PLATE, STOPPER SR
329	3-668-900-00	o	BRACKET, T SENSOR
330	3-668-901-00	s	HOLDER, T PHOTO
331	3-668-919-00	s	ROLLER, SR GUIDE
332	3-668-947-00	s	PINION, L
333	3-668-948-00	o	SHAFT WORM
334	3-668-963-00	s	ROLLER, RING
335	3-669-926-01	s	WASHER (3), THRUST
336	3-669-960-00	o	RETAINER, SHAFT
337	3-672-736-01	s	PULLEY, LM
338	3-672-737-01	s	BELT SQUARE
339	3-672-738-01	o	PLATE GROUND SLED
340	3-672-739-01	o	BELT, LM SHIELD
341	3-672-790-01	o	BRAKET, FR DETECTION
342	3-701-437-21	s	WASHER, POLY 2MM DIA., 0.50T
343	3-701-438-11	s	WASHER, POLY 2.5MM DIA., 0.25T
344	3-701-439-21	s	WASHER, POLY 3MM DIA., 0.50T
345	3-701-505-00	s	SET SCREW, DUBLE POINT 3x3
346	3-703-074-00	s	CAP 3, SHAFT
347	3-703-075-00	s	CAP 2, SHAFT
348	1-541-376-11	s	MOTOR, DC (DNR-4700A)

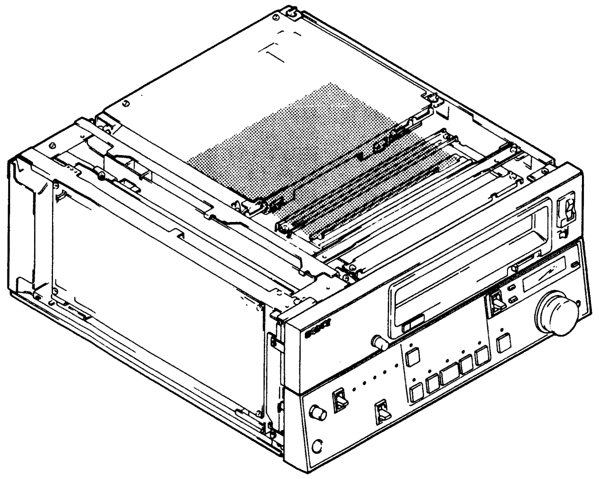
THREADING ARM

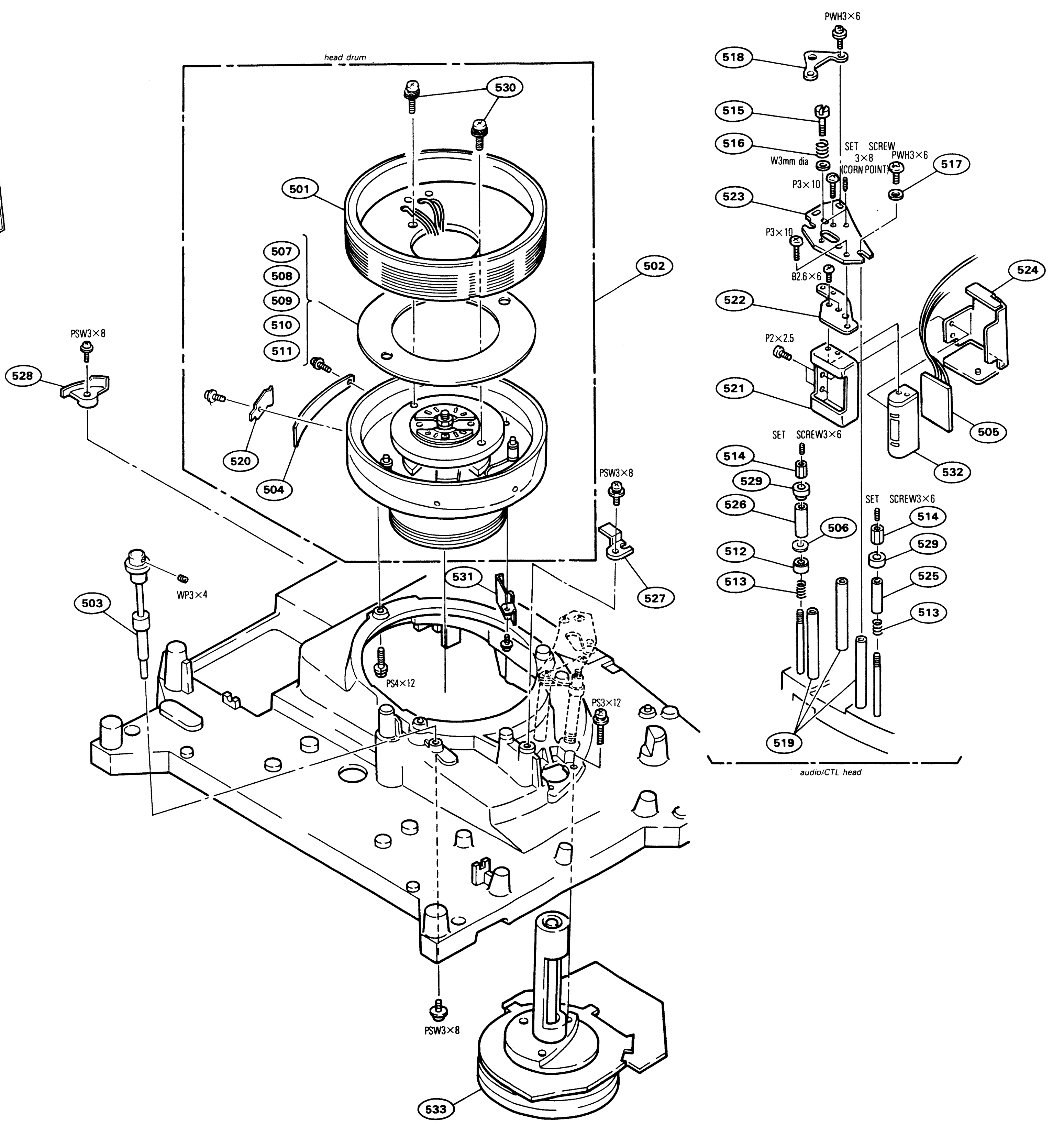



401
402
408
432
411
432
SET SCREW3×3
(FLAT POINT)
426
430
431
423
SET SCREW3×4
(FLAT TOP)
422
421
S drawer roller
drawer lever
PWH3×6
405
409
413
E−3
416
PWH3×6
428
419
410
432
412
432
433
B3×4
(FLAT TOP)
B3×10
SET SCREW 3×5
SET SCREW3×3
(FLAT·TOP)
414
SET SCREW 3×5
(FLAT TOP)
418
BV3×10
PTC
PSW3×8
427
403
417
406
T drawer arm
433
407
425
404
E−3
PSW3×6
424
PWH3×6
PWH3×6
420
415
S drawer arm
429
PSW3×8

No.	Part No.	SP	Description
401	A-6746-021-C	s	ROLLER BLOCK ASS'Y, S DRAWER
402	A-6746-034-A	s	ROLLER BLOCK ASS'Y, (2) DRAWER
403	A-6746-045-A	s	ROLLER BLOCK ASS'Y, T GUIDE
404	A-6750-201-A	o	ARM BLOCK ASS'Y, S DRAWER
405	A-6750-202-A	o	LEVER BLOCK ASS'Y, DRAWER
406	A-6750-218-A	o	ARM BLOCK ASS'Y, T DRAWER
407	X-3668-711-0	o	ARM ASS'Y, S DRAWER
408	X-3668-712-3	s	SHAFT (2) ASS'Y, ROLLER
409	X-3668-713-0	o	LINK (B) ASS'Y, DRIVING
410	X-3668-716-0	s	SHAFT (3) ASS'Y, ROLLER
411	X-3668-718-0	s	GUIDE ASS'Y, TAPE
412	X-3668-727-0	o	GUIDE ASS'Y, TAPE
413	X-3668-729-0	s	LEVER ASS'Y, DRAWER
414	X-3672-705-1	o	PLATE ASS'Y, GUIDE, T
415	X-3672-706-1	o	BASE ASS'Y, S DRAWER ARM
416	X-3672-708-1	o	ARM ASS'Y, T DRAWER
417	X-3718-305-1	o	RITAINER ASS'Y, ARM, T DRAWER
418	1-622-259-11	o	PRINTED CIRCUIT BOARD, PTC-34
419	3-534-854-00	s	SPRING, COMPRESSION
420	3-540-506-00	s	SPRING, TENSION
421	3-644-718-00	s	SPRING, COMPRESSION
422	3-668-718-00	s	RETAINER, SPRING, S DRAWER
423	3-668-719-00	s	HOLDER (L), S GUIDE
424	3-668-720-00	o	LIMITER, S DRAWER
425	3-668-721-00	s	ARM, S DRIVING
426	3-668-724-00	o	FLANGE (2), LOWER
427	3-668-734-00	o	SPRING
428	3-668-735-00	s	RETAINER, SPRING
429	3-668-760-00	s	SHAFT, DRAWER LEVER
430	3-668-833-00	s	HOLDER (M), GUIDE, S
431	3-669-946-00	s	RING (P4), O
432	3-701-438-01	s	WASHER, POLY 2.5MM DIA., 0.13T
433	3-703-074-00	s	CAP 3, SHAFT

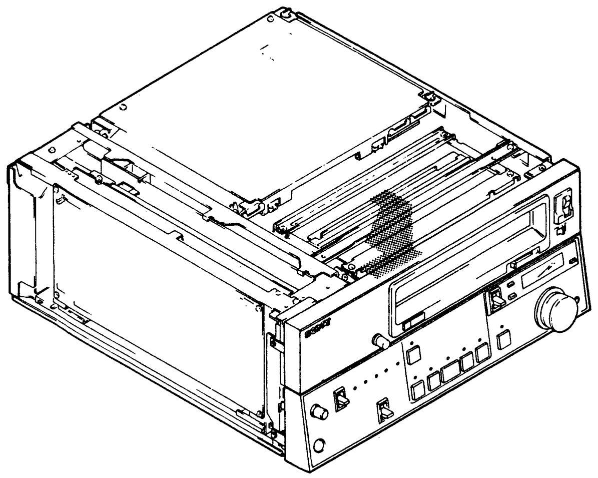
DRUM AND CAPSTAN BLOCKS

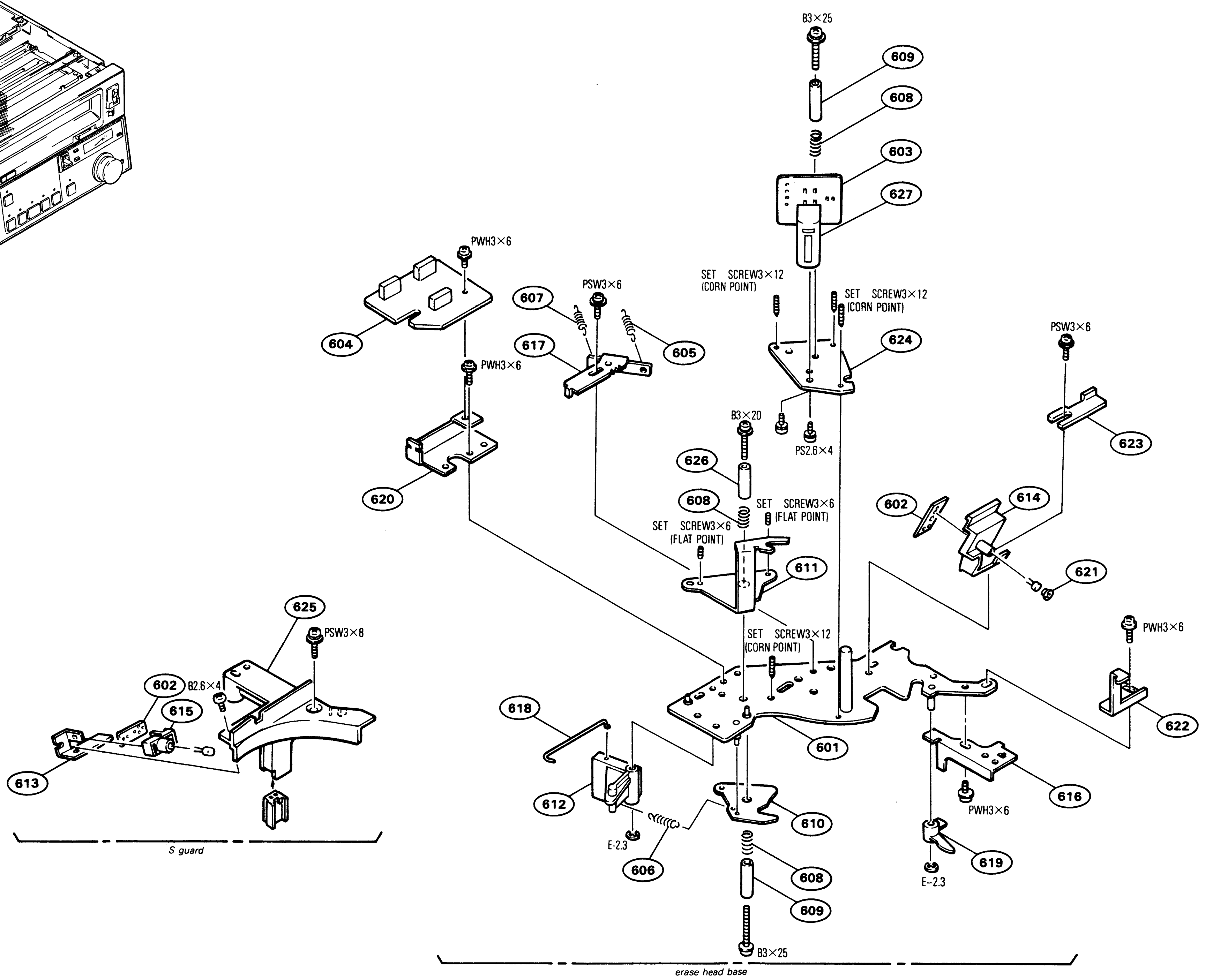



head drum
530
501
507
508
509
510
511
520
504
502
PSW3×8
528
503
WP3×4
531
PSW3×8
527
PS4×12
PS3×12
PSW3×8
533
PWH3×6
518
515
516
W3mm dia
SET SCREW 3×8 (CORN POINT)
PWH3×6
517
P3×10
523
P3×10
B2.6×6
522
524
P2×2.5
521
505
SET SCREW3×6
514
532
529
526
506
SET SCREW3×6
514
529
512
525
513
513
519
audio/CTL head

No.	Part No.	SP	Description
501	A-6709-602-A	s	UPPER DRUM ASS'Y, DUR-41-R
502	A-6709-605-A	s	HEAD DRUM ASS'Y, DUH-41A-R
503	A-6746-052-A	s	ROLLER ASS'Y, GUIDE, TAPE
504	1-586-633-00	s	DETECTOR, DEW
505	1-615-924-11	o	PRINTED CIRCUIT BOARD, DUS-92
506	3-534-329-11	s	WASHER, TAPE GUIDE
507	3-630-029-01	s	SPACER, FLANGE (0.01T)
508	3-630-029-11	s	SPACER, FLANGE (0.02T)
509	3-630-029-21	s	SPACER, FLANGE (0.05T)
510	3-630-029-31	s	SPACER, FLANGE (0.1T)
511	3-630-029-41	s	SPACER, FLANGE (0.03T)
512	3-641-612-00	s	GUIDE, TAPE
513	3-641-615-00	s	SPRING, COMPRESSION
514	3-641-616-00	s	NUT, TAPE GUIDE ADJUSTMENT
515	3-641-621-00	s	SCREW, HEAD ADJUSTMENT
516	3-641-622-00	s	SPRING, COMPRESSION
517	3-645-076-00	o	WASHER, M-REEL S
518	3-647-815-00	o	PLATE, ADJUSTMENT, CTL HEAD
519	3-647-816-00	o	POLE, SUPPORT, CTL BRACKET
520	3-655-631-00	o	TERMINAL, GRUND
521	3-655-675-02	o	CASE (F), AU
522	3-655-676-01	o	BRACKET (A), CTL HEAD
523	3-655-677-01	o	BRACKET (B), CTL HEAD
524	3-655-678-03	o	CASE (B), AU
525	3-672-730-01	s	TG-3
526	3-672-731-01	s	TG-4
527	3-672-762-01	o	PIN, DRUM
528	3-672-763-01	o	CAM, P OFFSET PREVENTION
529	3-688-807-01	s	FRANGE, TAPE GUIDE
530	3-703-467-01	s	SCREW
531	3-710-826-01	o	SHIELD, CN
532	8-825-578-41	s	HEAD, AUDIO PS264-5803
533	8-835-258-01	s	MOTOR, DC BHF-1915B

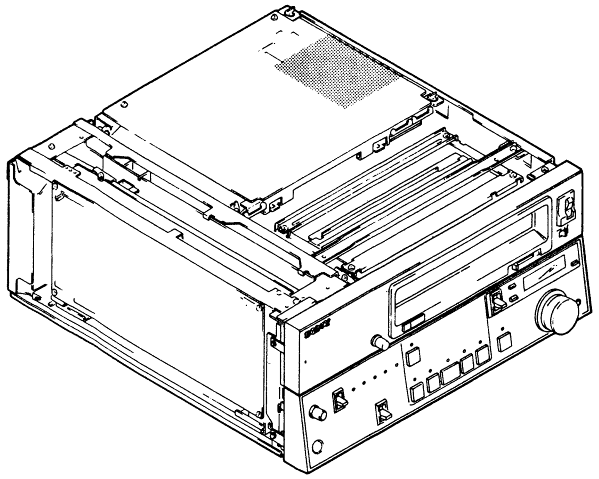
ERASE HEAD BASE

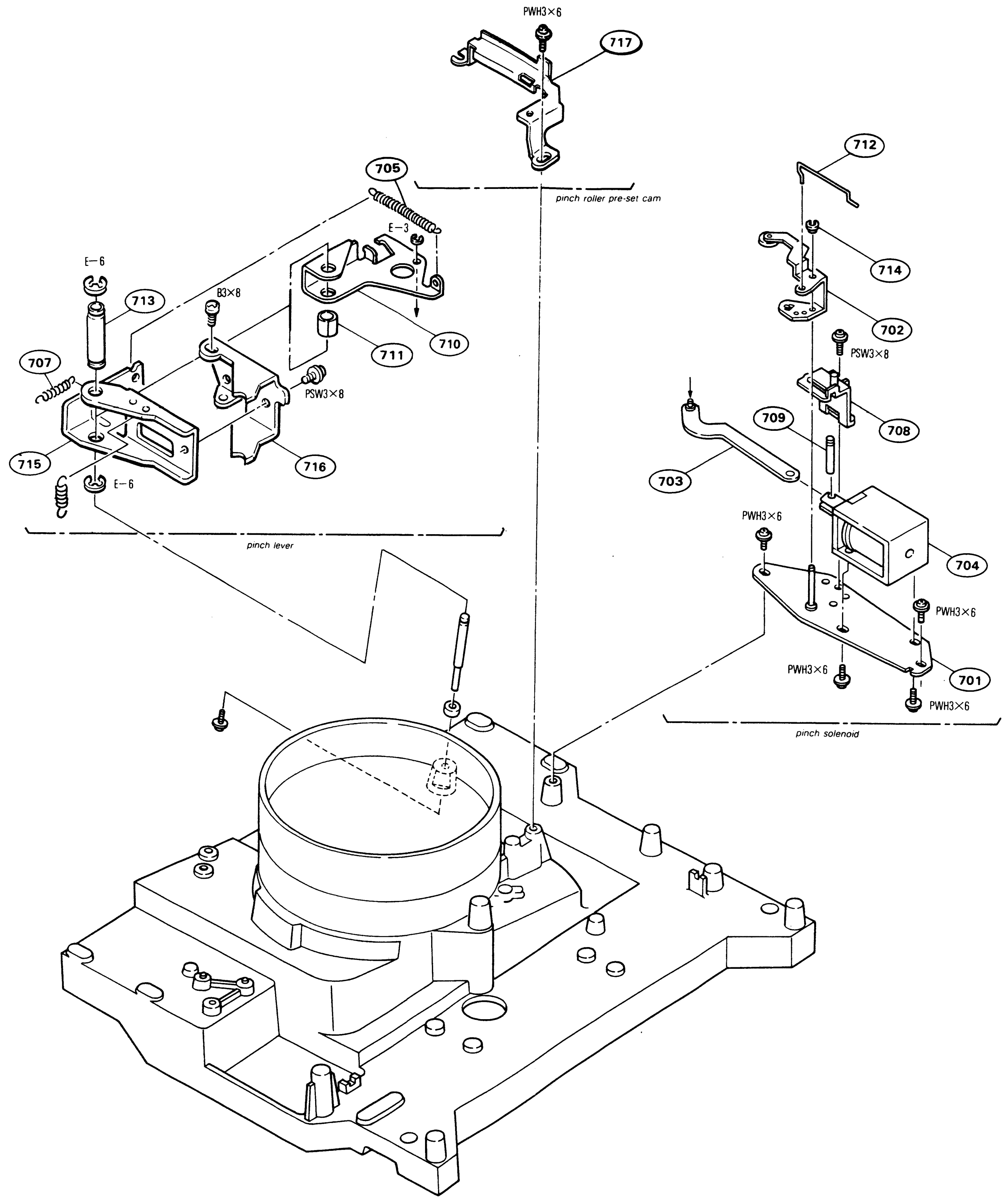



B3×25
609
608
603
627
PWH3×6
604
PSW3×6
607
617
605
PWH3×6
620
SET SCREW3×12 (CORN POINT)
SET SCREW3×12 (CORN POINT)
624
PSW3×6
623
B3×20
PS2.6×4
626
608
SET SCREW3×6 (FLAT POINT)
SET SCREW3×6 (FLAT POINT)
611
602
614
621
SET SCREW3×12 (CORN POINT)
PWH3×6
622
625
PSW3×8
602
B2.6×4
615
613
618
601
612
610
616
PWH3×6
619
E-2.3
606
E-2.3
608
609
B3×25
S guard
erase head base

No.	Part No.	SP	Description
601	X-3668-728-0	o	DECK ASS'Y, E HEAD
602	1-603-737-00	o	PRINTED CIRCUIT BOARD, PH-5
603	1-622-223-11	o	PRINTED CIRCUIT BOARD, EC-28
604	1-622-261-11	o	PRINTED CIRCUIT BOARD, DUS-147
605	3-534-238-XX	s	SPRING, TENSION (23T)
606	3-535-531-00	s	SPRING, TENSION
607	3-538-102-00	s	SPRING, TENSION
608	3-637-335-00	s	SPRING, COMPRESSION (C)
609	3-657-086-00	o	SPACER (3x20)
610	3-668-705-00	s	HOLDER (LOWER), S
611	3-668-706-02	s	HOLDER (UPPER), S
612	3-668-708-00	o	ARM, DRIVING, CORRECTION GUIDE
613	3-668-809-02	o	BRACKET, HOLDER
614	3-668-832-02	o	HOLDER (S)
615	3-668-837-00	o	HOLDER, LED
616	3-668-859-00	o	STOPPER, RING
617	3-668-860-00	o	HOOK, SPRING, TENSION REGULATOR
618	3-668-884-03	o	JOINT, RESERVE PRESS
619	3-668-894-00	o	LEVER, RELEASE
620	3-668-962-00	o	BRACKET, AH PC BOARD
621	3-669-920-00	o	COVER, S PHOTO
622	3-669-963-00	o	SPRING, LEAF, GROUND
623	3-669-964-00	o	PLATE, GROUND
624	3-672-723-00	o	TABLE, HEAD, E
625	3-672-764-03	s	GUARD, S
626	4-855-006-11	s	SPACER (3x14)
627	8-825-514-20	s	HEAD, CTL (PP170-58)

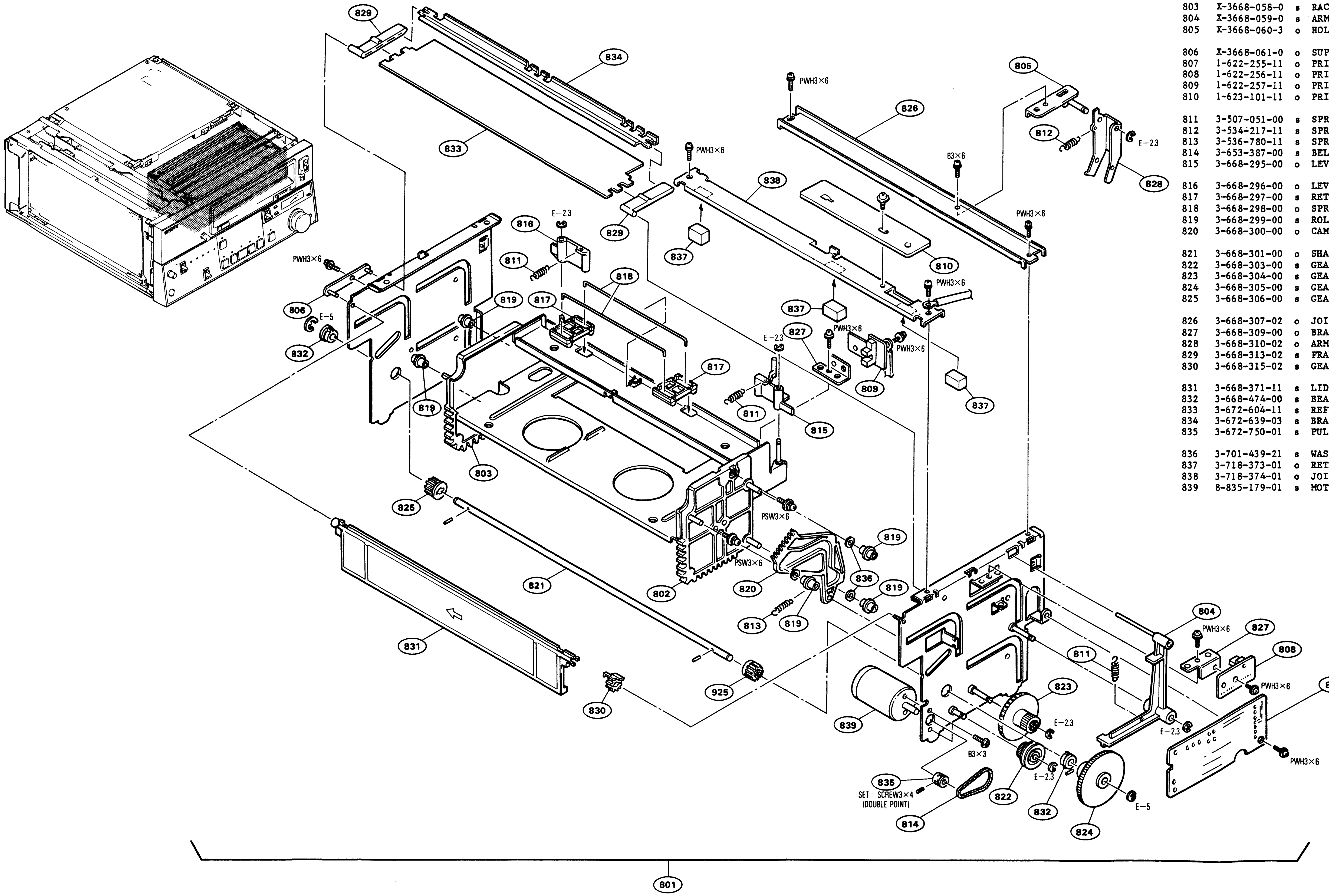
PINCH LEVER AND PINCH SOLENOID BLOCKS




PWH3×6
717
705
E-3
pinch roller pre-set cam
712
714
702
PSW3×8
708
709
703
704
PWH3×6
PWH3×6
PWH3×6
701
PWH3×6
pinch solenoid
E-6
713
B3×8
711
710
707
PSW3×8
715
716
E-6
pinch lever

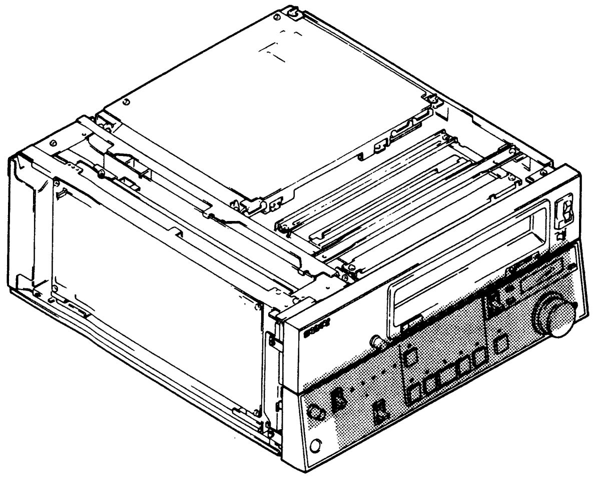
No.	Part No.	SP	Description
701	X-3668-734-0	o	BASE ASS'Y, PINCH PRESS
702	X-3668-735-3	s	LEVER ASS'Y, RESERVE PRESS
703	X-3668-736-0	o	JOINT ASS'Y
704	1-454-416-31	s	SOLENOID, PLUNGER
705	3-610-265-02	s	SPRING
707	3-645-392-00	s	SPRING, TENSION
708	3-668-863-00	s	GUIDE, ARBOR
709	3-668-864-00	s	PIN, SOLENOID
710	3-668-865-00	o	LEVER (B), PINCH PRESS
711	3-668-867-00	o	SPACER (8x9)
712	3-668-884-03	o	JOINT, RESERVE PRESS
713	3-668-896-00	o	SLEEVE, PRESS LEVER, PINCH
714	3-703-074-00	s	CAP 3, SHAFT
715	3-718-364-01	o	LEVER (A), PINCH PRESS
716	3-718-365-01	o	PLATE, PRESS, PINCH
717	3-718-727-01	o	DECK, RESERVE PRESS

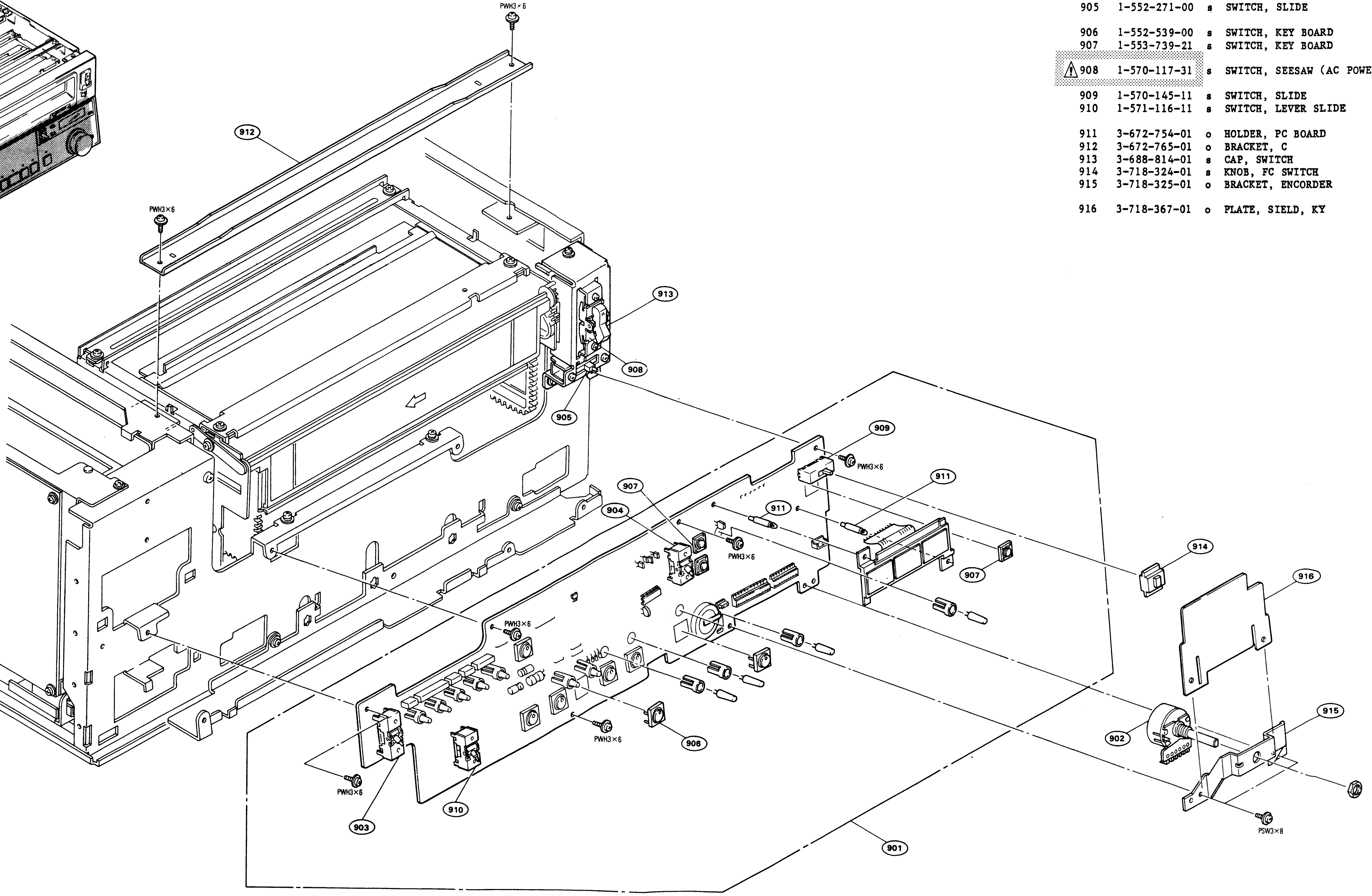
CASSETTE-UP COMPARTMENT BLOCK


829
834
833
829
PWH3×6
826
805
812
E-2.3
828
B3×6
PWH3×6
838
810
837
837
827
809
837
PWH3×6
E-2.3
816
811
818
819
817
817
811
815
PWH3×6
806
E-5
832
819
803
825
PSW3×6
PSW3×6
819
836
819
820
802
813
819
821
831
830
925
839
823
E-2.3
B3×3
835
SET SCREW3×4
(DOUBLE POINT)
814
822
E-2.3
832
824
E-5
804
PWH3×6
827
808
PWH3×6
807
811
E-2.3
PWH3×6
801

No.	Part No.	SP	Description
801	A-6751-367-A	s	CASSETTE-UP BLOCK ASS'Y
802	X-3668-057-0	s	RACK ASS'Y, CASSETTE COMPARTMENT
803	X-3668-058-0	s	RACK ASS'Y, CASSETTE COMPARTMENT
804	X-3668-059-0	s	ARM ASS'Y, SWITCH, DOWN
805	X-3668-060-3	o	HOLDER ASS'Y, ARM
806	X-3668-061-0	o	SUPPORT ASS'Y, LID
807	1-622-255-11	o	PRINTED CIRCUIT BOARD, CC-31
808	1-622-256-11	o	PRINTED CIRCUIT BOARD, CC-32
809	1-622-257-11	o	PRINTED CIRCUIT BOARD, CC-33
810	1-623-101-11	o	PRINTED CIRCUIT BOARD, LP-41
811	3-507-051-00	s	SPRING, TENSION
812	3-534-217-11	s	SPRING, TENSION
813	3-536-780-11	s	SPRING, TENSION
814	3-653-387-00	s	BELT, LM
815	3-668-295-00	o	LEVER (RIGHT), CASSETTE PUSH-OUT
816	3-668-296-00	o	LEVER (LEFT), CASSETTE PUSH-OUT
817	3-668-297-00	s	RETAINER, CASSETTE
818	3-668-298-00	o	SPRING
819	3-668-299-00	s	ROLLER, GUIDE
820	3-668-300-00	o	CAM, LID OPEN
821	3-668-301-00	o	SHAFT, DRIVING
822	3-668-303-00	s	GEAR (A)
823	3-668-304-00	s	GEAR (B)
824	3-668-305-00	s	GEAR (C)
825	3-668-306-00	s	GEAR (D)
826	3-668-307-02	o	JOINT (R), LEFT & RIGHT
827	3-668-309-00	o	BRACKET, SWITCH
828	3-668-310-02	o	ARM, LID OPEN
829	3-668-313-02	s	FRAME, SUPPORT, REFLECTOR
830	3-668-315-02	s	GEAR, LID
831	3-668-371-11	s	LID, CASSETTE
832	3-668-474-00	s	BEARING (6)
833	3-672-604-11	s	REFLECTOR
834	3-672-639-03	s	BRACKET, LAMP
835	3-672-750-01	s	PULLEY (C), MOTOR
836	3-701-439-21	s	WASHER, POLY 3MM DIA., 0.50T
837	3-718-373-01	o	RETAINER, LID
838	3-718-374-01	o	JOINT (F), LEFT & RIGHT
839	8-835-179-01	s	MOTOR, DC MCB2B15

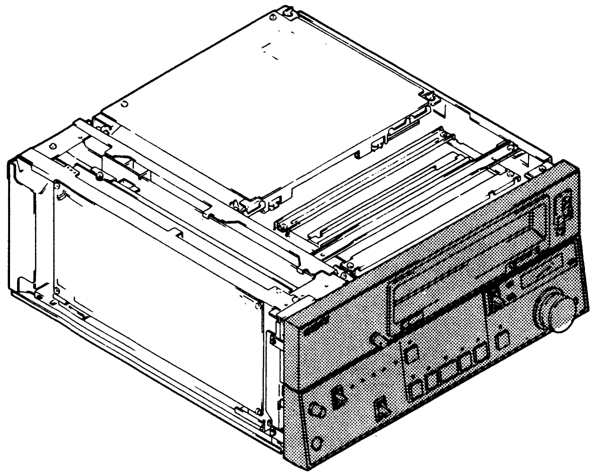
FUNCTION CONTROL

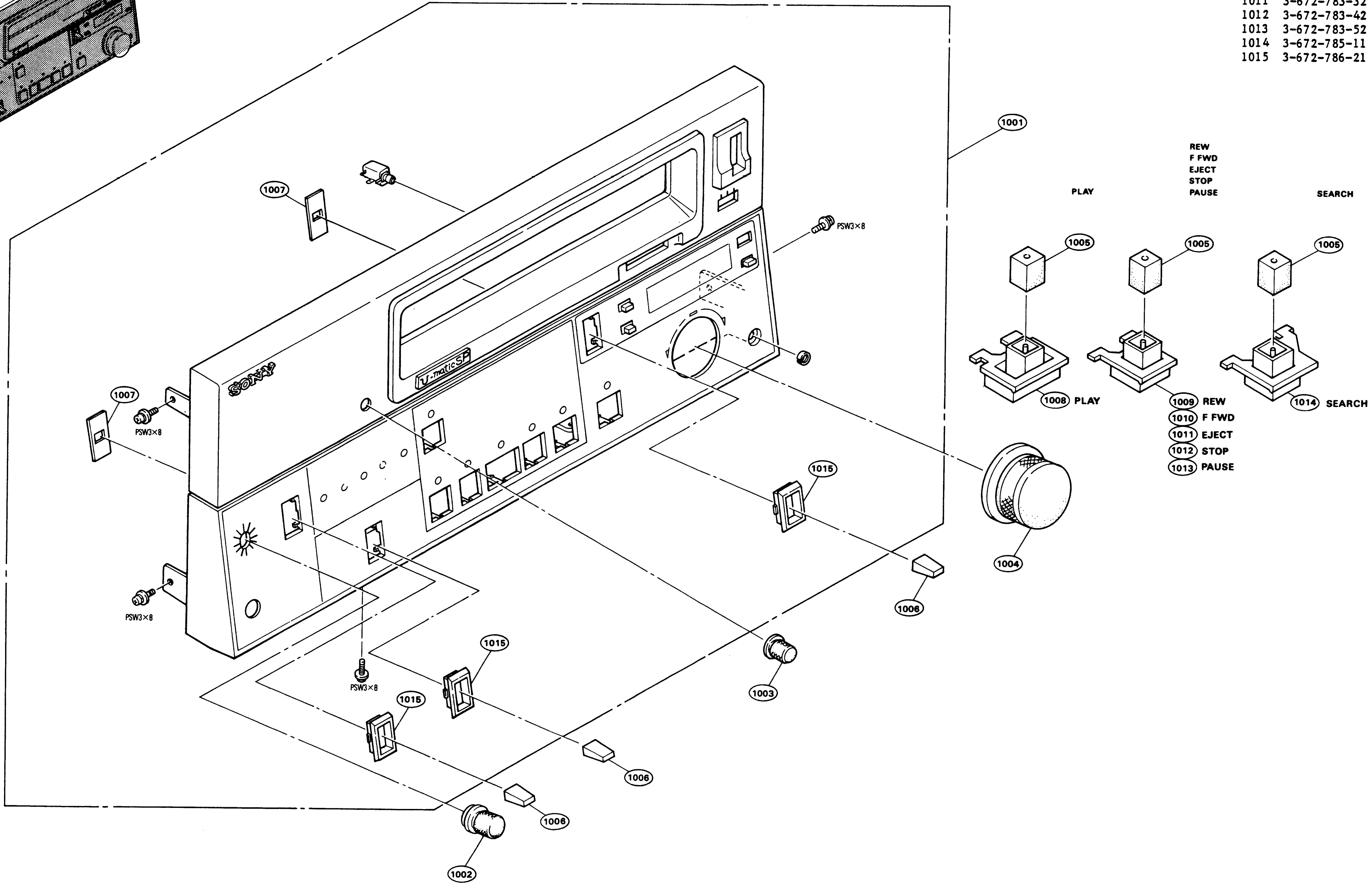



PWH3×6
912
PWH3×6
913
908
905
909
PWH3×6
911
907
911
904
PWH3×6
914
907
916
PWH3×6
PWH3×6
906
902
915
PWH3×6
903
910
PSW3×8
901

No.	Part No.	SP	Description
901	A-6717-455-A	o	MOUNTED CIRCUIT BOARD, KY-105A
902	1-464-801-12	s	ENCODER, ROTARY
903	1-516-298-00	s	SWITCH, LEVER SLIDE
904	1-516-995-00	s	SWITCH, LEVER SLIDE
905	1-552-271-00	s	SWITCH, SLIDE
906	1-552-539-00	s	SWITCH, KEY BOARD
907	1-553-739-21	s	SWITCH, KEY BOARD
⚠908	1-570-117-31	s	SWITCH, SEESAW (AC POWER)
909	1-570-145-11	s	SWITCH, SLIDE
910	1-571-116-11	s	SWITCH, LEVER SLIDE
911	3-672-754-01	o	HOLDER, PC BOARD
912	3-672-765-01	o	BRACKET, C
913	3-688-814-01	s	CAP, SWITCH
914	3-718-324-01	s	KNOB, FC SWITCH
915	3-718-325-01	o	BRACKET, ENCORDER
916	3-718-367-01	o	PLATE, SIELD, KY

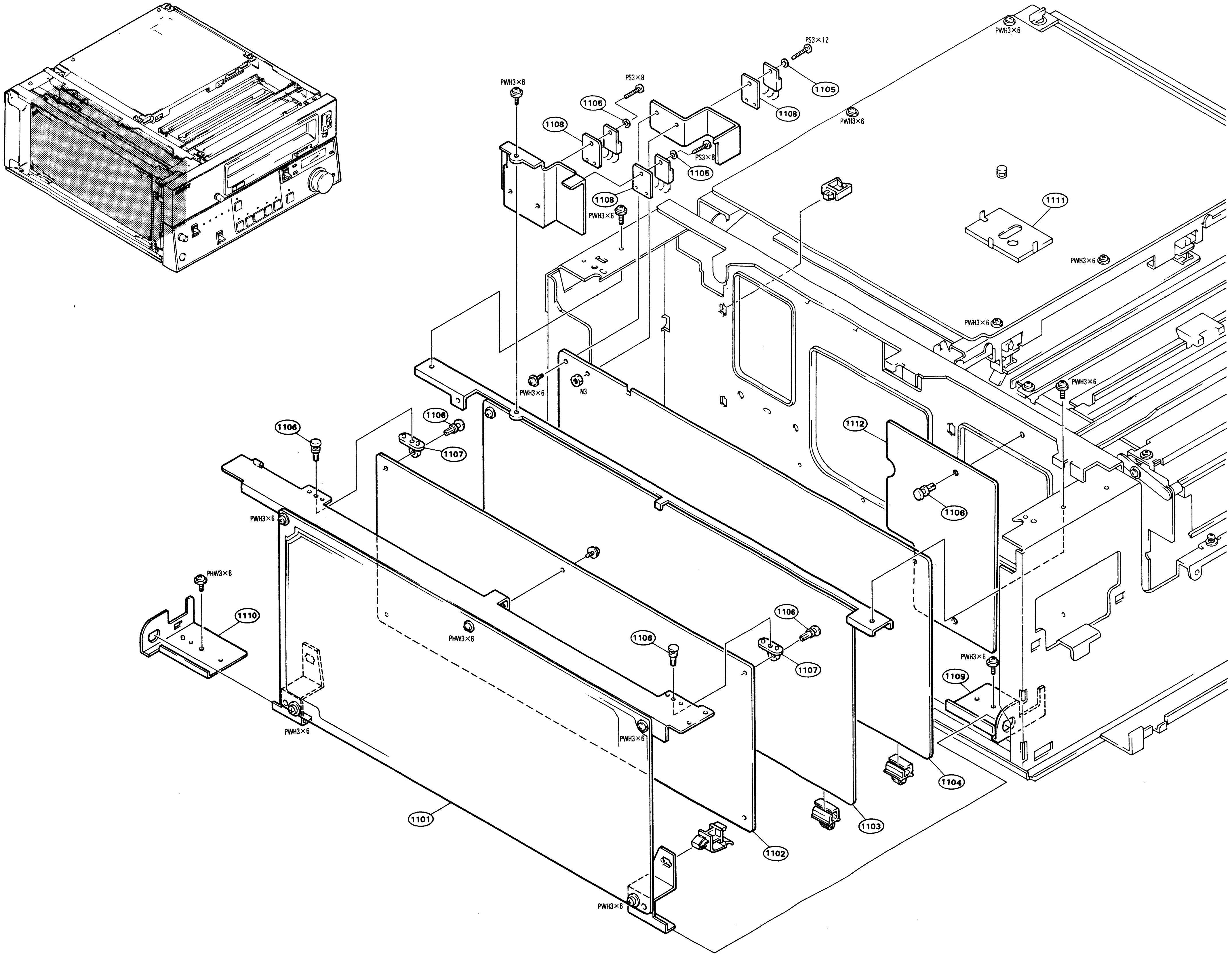
FRONT PANEL BLOCK




1001
1002
1003
1004
1005
1006
1007
1015
PSW3×8
PLAY
REW
F FWD
EJECT
STOP
PAUSE
SEARCH
1008 PLAY
1009 REW
1010 F FWD
1011 EJECT
1012 STOP
1013 PAUSE
1014 SEARCH

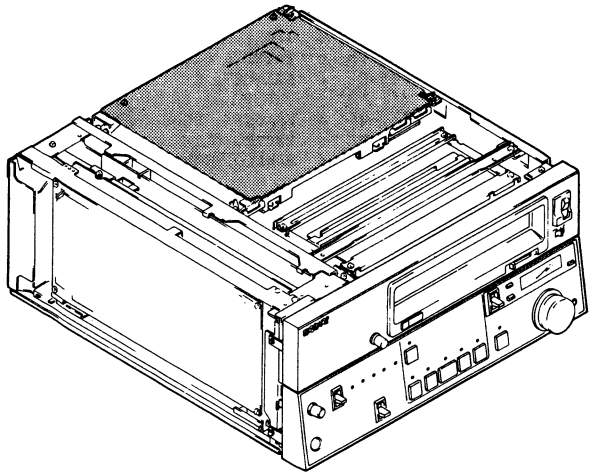
No.	Part No.	SP	Description
1001	A-6704-267-A	o	PANEL ASS'Y, FRONT
1002	X-2112-801-1	s	KNOB ASS'Y, VOL
1003	X-3672-707-1	s	KNOB ASS'Y, VOLUME
1004	X-3718-304-1	s	KNOB ASS'Y, DIAL
1005	2-284-744-00	o	CUSHION (B), KEY
1006	3-668-028-21	s	KNOB (SMALL), LEVER SWITCH
1007	3-669-909-31	o	PLATE, BLIND, LEVER SWITCH
1008	3-672-782-02	s	KEY TOP (A) "PLAY"
1009	3-672-783-02	s	KEY TOP (B) "REW"
1010	3-672-783-12	s	KEY TOP (B) "F FWD"
1011	3-672-783-32	s	KEY TOP (B) "EJECT"
1012	3-672-783-42	s	KEY TOP (B) "STOP"
1013	3-672-783-52	s	KEY TOP (B) "PAUSE"
1014	3-672-785-11	s	KEY TOP (D) "SEARCH"
1015	3-672-786-21	o	ESCUTCHEON (INNER), SLIDE SW

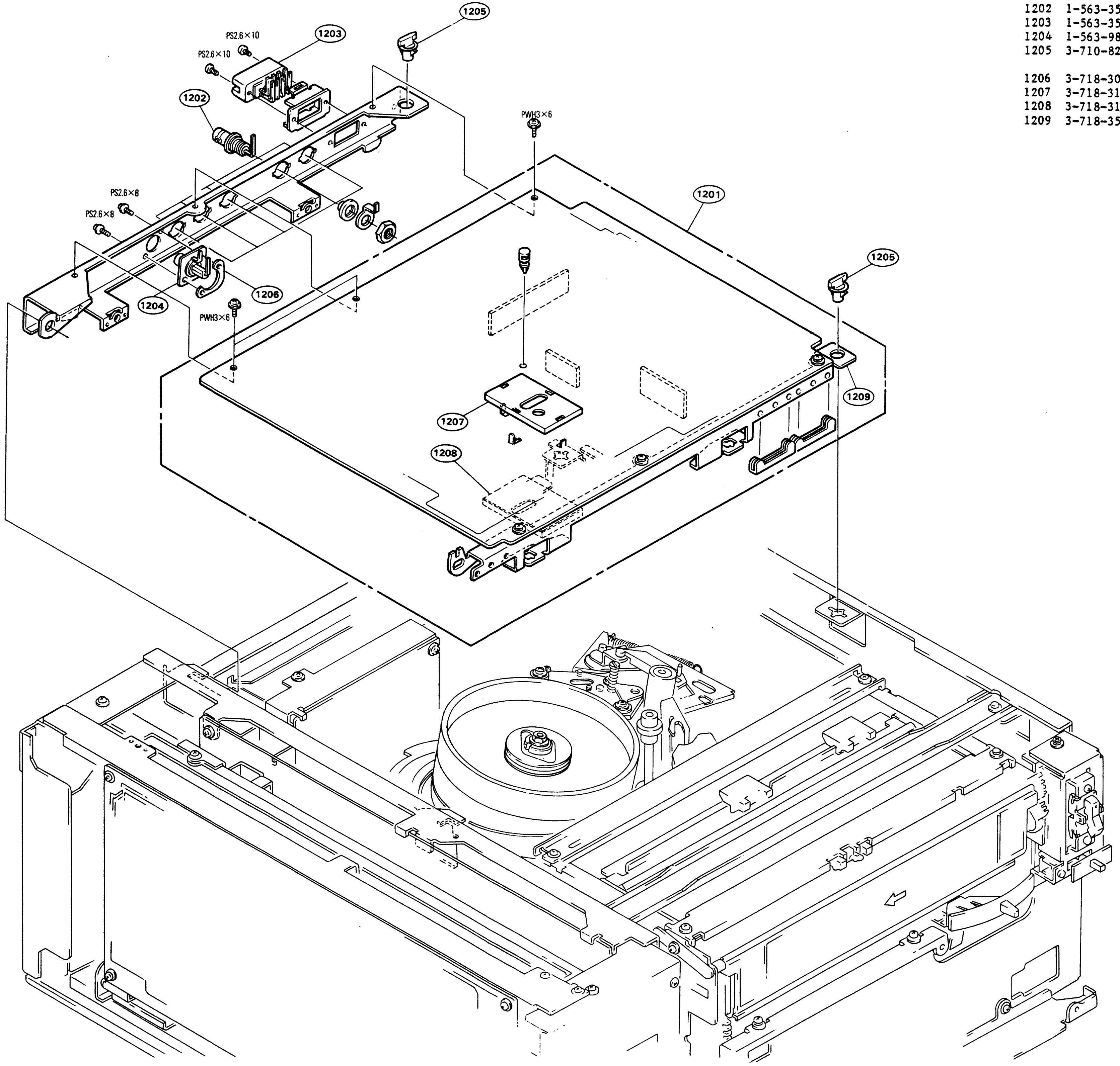
CHASSIS BLOCK (1), LEFT SIDE


PWH3×6
PS3×12
1105
1108
PWH3×6
PWH3×6
PS3×8
1105
1108
PS3×8
1105
1108
PWH3×6
1111
PWH3×6
PWH3×6
PWH3×6
N3
PWH3×6
1106
1107
1106
1112
1106
PWH3×6
PHW3×6
1110
PHW3×6
1106
1106
1107
PWH3×6
1109
PWH3×6
PWH3×6
1104
1103
1101
1102
PWH3×6

No.	Part No.	SP	Description
1101	A-6713-280-A	o	MOUNTED CIRCUIT BOARD, AU-82A
1102	A-6713-281-A	o	MOUNTED CIRCUIT BOARD, AU-89A
1103	A-6715-364-A	o	MOUNTED CIRCUIT BOARD, SV-93A
1104	A-6717-454-A	o	MOUNTED CIRCUIT BOARD, SY-106A
1105	2-371-561-00	s	BUSHING (P), INSULATING
1106	3-646-090-00	s	RIVET, NYLON
1107	3-657-153-00	o	HINGE
1108	3-703-037-00	s	INSULATOR, TO-220
1109	3-718-303-01	o	PLATE (A), HINGE, AU
1110	3-718-304-01	o	PLATE (B), HINGE, AU
1111	3-718-315-01	s	PLATE (UPPER), SHIELD, VP
1112	3-718-370-01	o	INSULATOR, SY

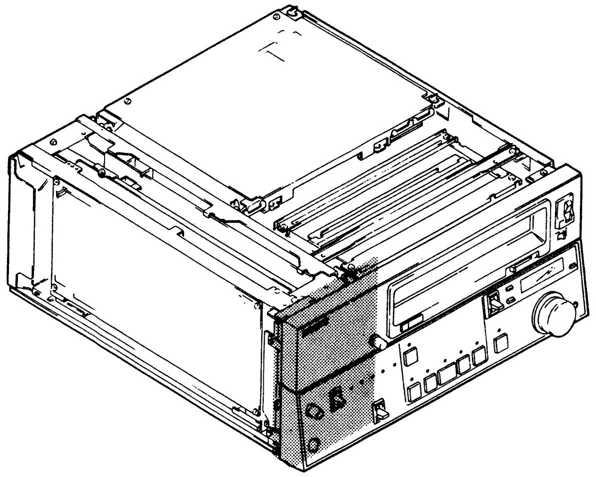
CHASSIS BLOCK (2), BACK SIDE

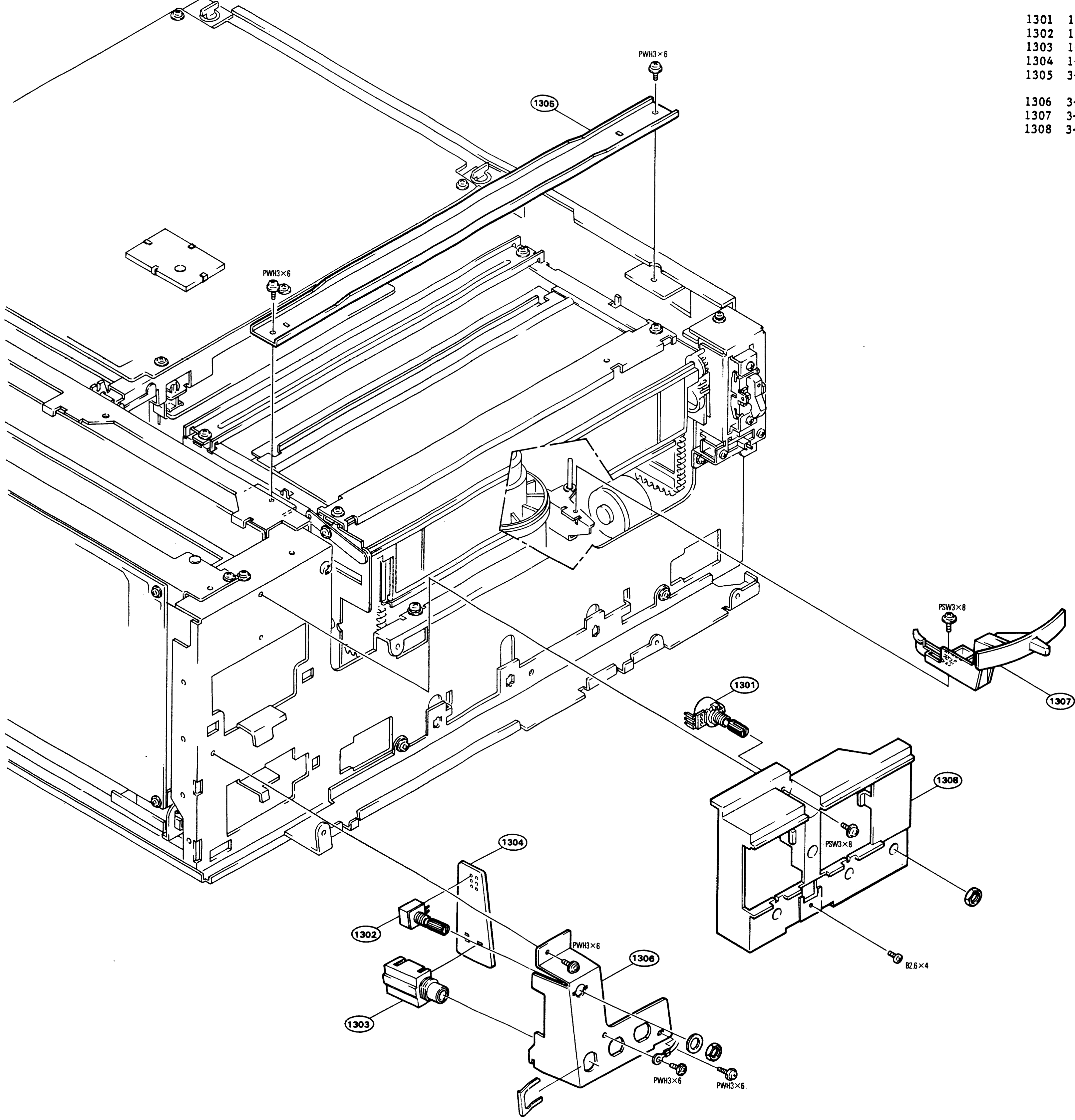



1205
PS2.6×10
1203
PS2.6×10
1202
PWH3×6
1201
PS2.6×8
PS2.6×8
1206
1204
PWH3×6
1205
1209
1207
1208

No.	Part No.	SP	Description
1201	A-6711-822-A	o	MOUNTED CIRCUIT BOARD, VP-21A
1202	1-563-354-11	s	CONNECTOR, BNC
1203	1-563-356-11	s	CONNECTOR, MULTI 8P
1204	1-563-989-11	s	JACK, PIN (RCA) 1P
1205	3-710-825-01	o	FASTENER, PLATE
1206	3-718-302-01	o	BRACKET, PIN JACK
1207	3-718-315-01	s	PLATE (UPPER), SHIELD, VP
1208	3-718-316-01	o	PLATE (LOWER), SHIELD VP
1209	3-718-354-01	o	BRACKET, VR

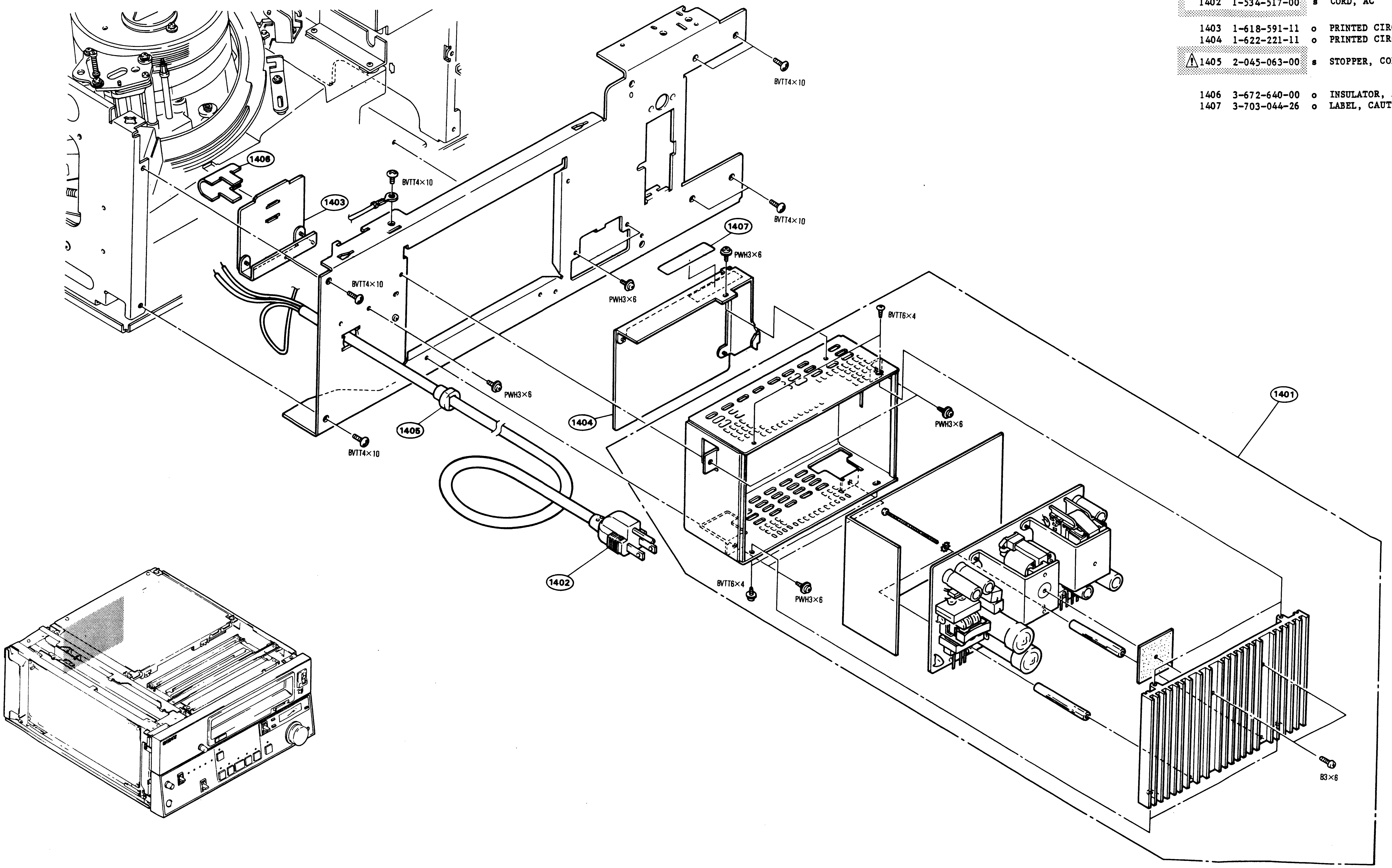
LEVEL CONTROL PANEL




PWH3×6
1305
PWH3×6
PSW3×8
1307
1301
1308
PSW3×8
1304
1302
PWH3×6
1306
1303
B2.6×4
PWH3×6
PWH3×6

No.	Part No.	SP	Description
1301	1-237-215-11	s	RES, VAR CARBON 100K
1302	1-237-703-11	s	RES, VAR CARBON 2K/2K
1303	1-562-795-11	s	JACK, LARGE TYPE
1304	1-622-220-11	o	PRINTED CIRCUIT BOARD, HP-30
1305	3-672-765-01	o	BRACKET, C
1306	3-718-331-01	o	BRACKET, HEAD PHONE
1307	3-718-337-01	s	LEVER, SKEW
1308	3-718-341-01	o	PANEL, METER

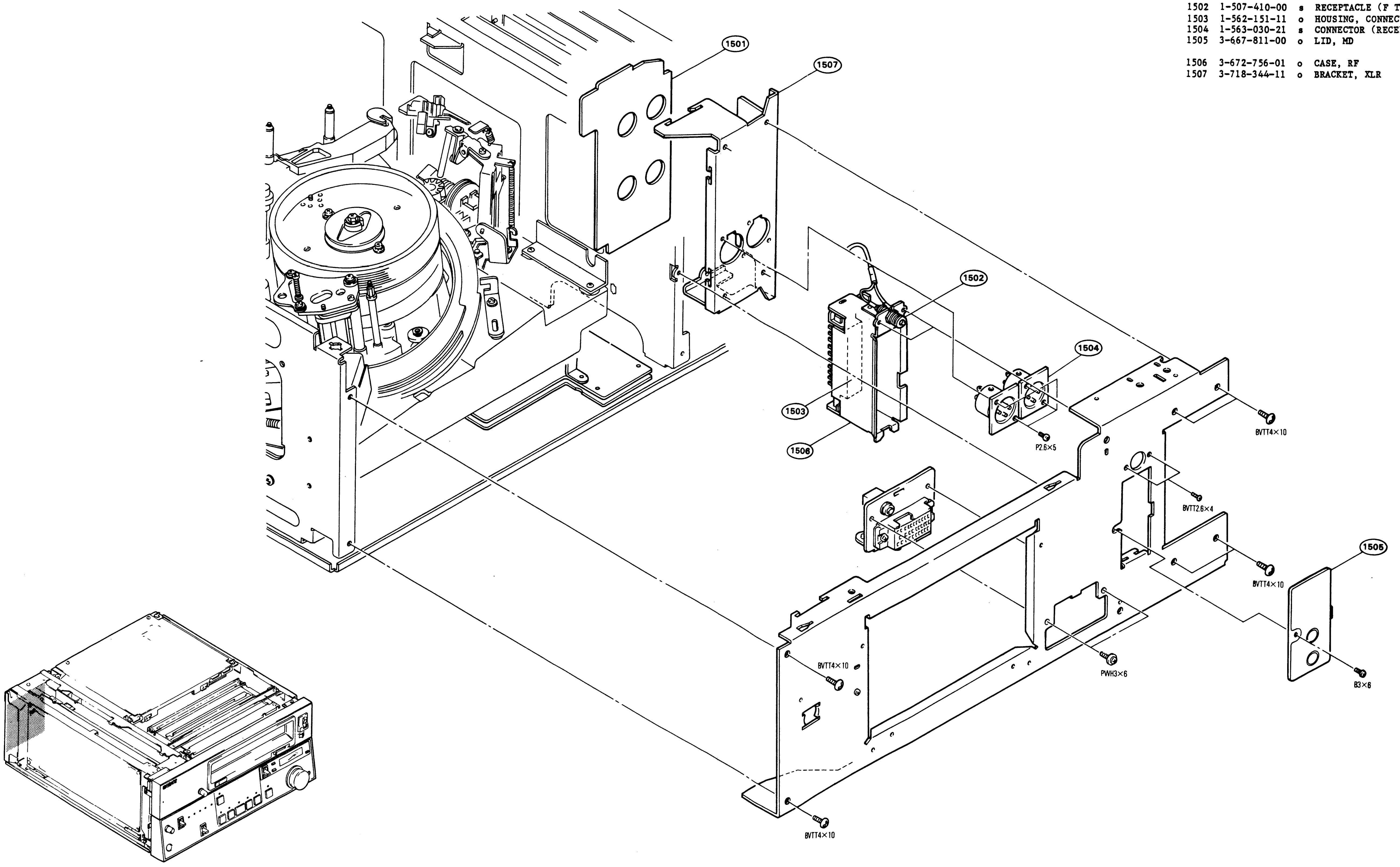
SWITCHING REGULATOR


1406
1403
BVTT4×10
BVTT4×10
BVTT4×10
1407
PWH3×6
BVTT4×10
PWH3×6
BVTT6×4
PWH3×6
1401
1404
1405
BVTT4×10
1402
BVTT6×4
PWH3×6
B3×6

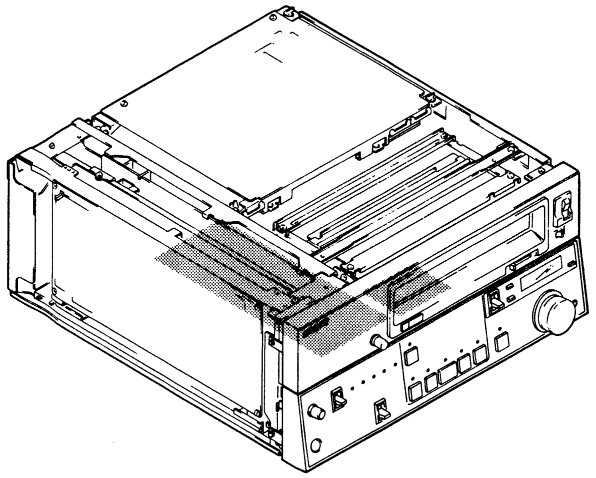
No.	Part No.	SP	Description
⚠ 1401	1-413-248-11	s	SWITCHING REGULATOR (UR-14)
1402	1-534-517-00	s	CORD, AC
1403	1-618-591-11	o	PRINTED CIRCUIT BOARD, AC-65
1404	1-622-221-11	o	PRINTED CIRCUIT BOARD, DC-31
⚠ 1405	2-045-063-00	s	STOPPER, CORD
1406	3-672-640-00	o	INSULATOR, AC
1407	3-703-044-26	o	LABEL, CAUTION

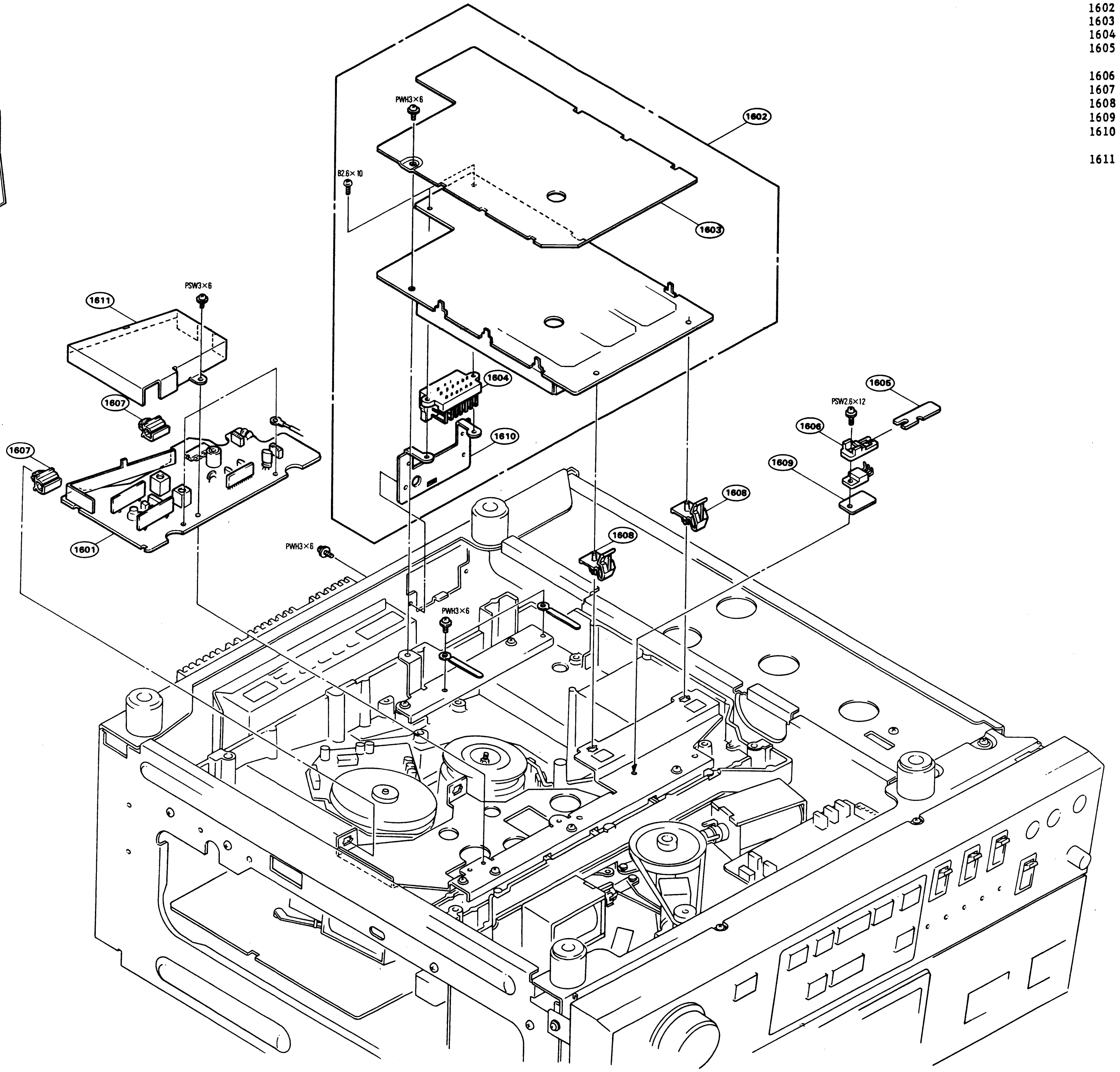
CONNECTOR PANEL

No.	Part No.	SP	Description
1501	A-6713-282-A	o	MOUNTED CIRCUIT BOARD, CP-112A
1502	1-507-410-00	s	RECEPTACLE (F TYPE)
1503	1-562-151-11	o	HOUSING, CONNECTOR 6P
1504	1-563-030-21	s	CONNECTOR (RECEPTACLE) 3P
1505	3-667-811-00	o	LID, MD
1506	3-672-756-01	o	CASE, RF
1507	3-718-344-11	o	BRACKET, XLR


1501
1507
1502
1504
1503
1506
P2.6×5
BVTT4×10
BVTT2.6×4
BVTT4×10
1505
BVTT4×10
PWH3×6
B3×6
BVTT4×10

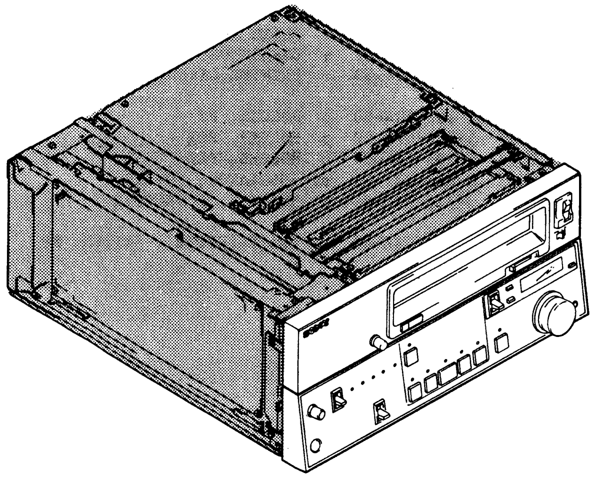
CHASSIS BLOCK (3), BOTTOM

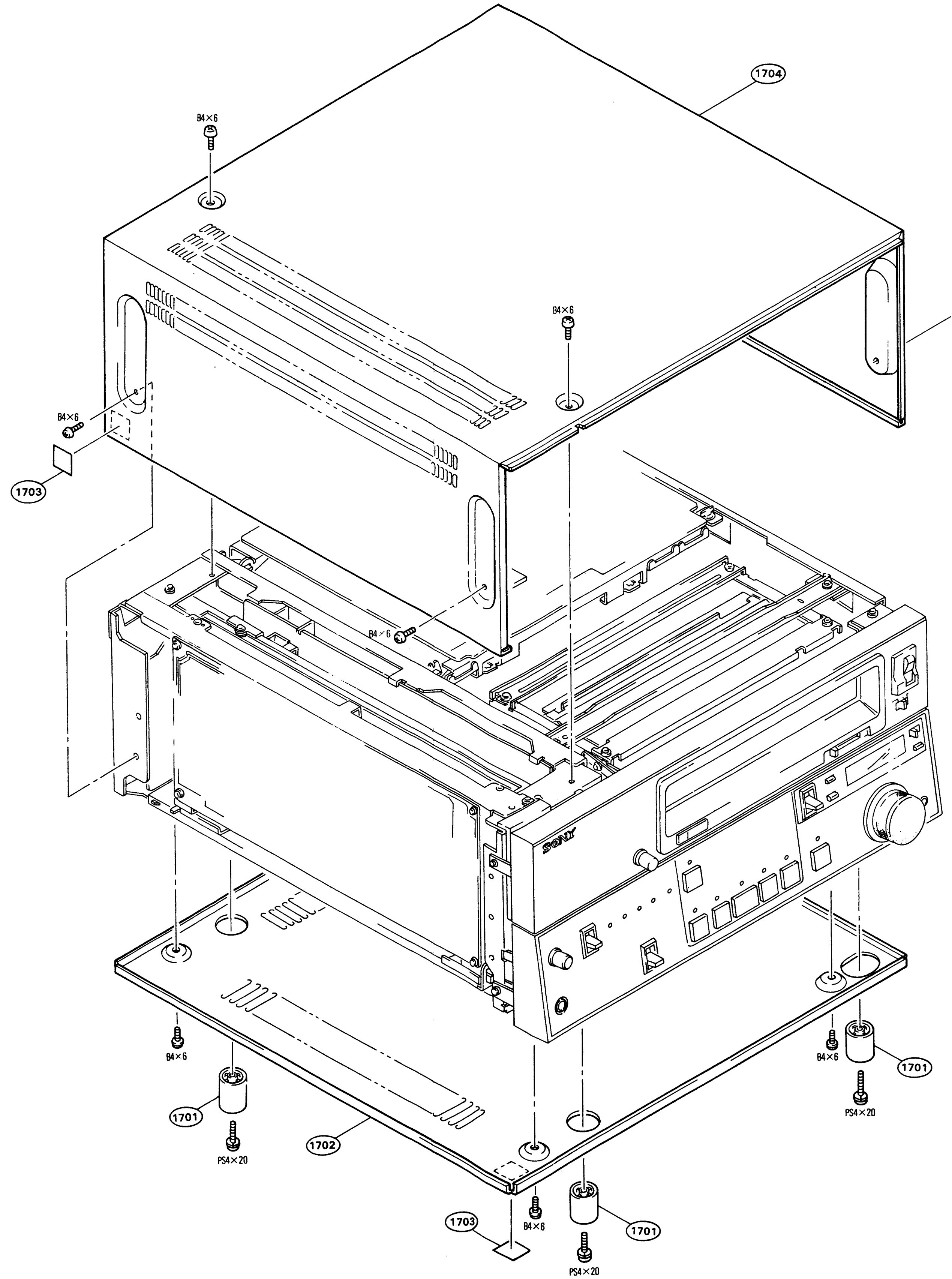



1602
PWH3×6
B2.6×10
1603
PSW3×6
1611
1604
1607
1610
1605
PSW2.6×12
1606
1607
1609
1608
1608
1601
PWH3×6
PWH3×6

No.	Part No.	SP	Description
1601	A-6711-823-A	o	MOUNTED CIRCUIT BOARD, RP-31A
1602	A-6717-450-A	o	MOUNTED CIRCUIT BOARD, IF-132
1603	X-3718-306-1	o	PLATE BLOCK ASS'Y, SHIELD IF
1604	1-566-615-11	s	CONNECTOR, SQUARE 33P
1605	1-605-018-00	o	PRINTED CIRCUIT BOARD, PT-9
1606	3-669-904-00	o	HOLDER, PT
1607	3-703-072-00	o	HOLDER, PCB
1608	3-703-141-00	o	HOLDER, PCB
1609	3-703-207-11	s	INSULATOR, TO-220
1610	3-718-321-01	o	BRACKET, CONNECTOR
1611	3-718-368-01	o	PLATE (UPPER), SHIELD, RP

ORNAMENTAL PANEL BLOCK




B4×6
1704
B4×6
B4×6
B4×6
1703
B4×6
B4×6
1701
PS4×20
1702
B4×6
1701
PS4×20
1703
B4×6
1701
PS4×20

No.	Part No.	SP	Description
1701	3-642-656-01	s	LEG
1702	3-672-766-01	o	BOARD, BOTTOM
1703	3-703-848-01	o	LABEL (N), SUB CAUTION
1704	3-718-347-01	o	CASE, U

15-3. ELECTRICAL PARTS LIST

General Purpose Electrical Parts List

Parts that are not listed in the "reference numbers order list" are shown in following list.
Reference numbers are omitted.

CAPACITOR

.MYLAR

Part No.	SP	Description
1-130-467-00	s	CAP, MYLAR 470pF 5% 50V
1-130-468-00	s	CAP, MYLAR 560pF 5% 50V
1-130-469-00	s	CAP, MYLAR 680pF 5% 50V
1-130-470-00	s	CAP, MYLAR 820pF 5% 50V
1-130-471-00	s	CAP, MYLAR 1000pF 5% 50V
1-130-472-00	s	CAP, MYLAR 1200pF 5% 50V
1-130-473-00	s	CAP, MYLAR 1500pF 5% 50V
1-130-474-00	s	CAP, MYLAR 1800pF 5% 50V
1-130-475-00	s	CAP, MYLAR 2200pF 5% 50V
1-130-476-00	s	CAP, MYLAR 2700pF 5% 50V
1-130-477-00	s	CAP, MYLAR 3300pF 5% 50V
1-130-478-00	s	CAP, MYLAR 3900pF 5% 50V
1-130-479-00	s	CAP, MYLAR 4700pF 5% 50V
1-130-480-00	s	CAP, MYLAR 5600pF 5% 50V
1-130-481-00	s	CAP, MYLAR 6800pF 5% 50V
1-130-482-00	s	CAP, MYLAR 8200pF 5% 50V
1-130-483-00	s	CAP, MYLAR 0.01 5% 50V
1-130-484-00	s	CAP, MYLAR 0.012 5% 50V
1-130-485-00	s	CAP, MYLAR 0.015 5% 50V
1-130-486-00	s	CAP, MYLAR 0.018 5% 50V
1-130-487-00	s	CAP, MYLAR 0.022 5% 50V
1-130-488-00	s	CAP, MYLAR 0.027 5% 50V
1-130-489-00	s	CAP, MYLAR 0.033 5% 50V
1-130-490-11	s	CAP, MYLAR 0.039 5% 50V
1-130-491-00	s	CAP, MYLAR 0.047 5% 50V
1-130-492-11	s	CAP, MYLAR 0.056 5% 50V
1-130-493-00	s	CAP, MYLAR 0.068 5% 50V
1-130-494-11	s	CAP, MYLAR 0.082 5% 50V
1-130-495-00	s	CAP, MYLAR 0.1 5% 50V
1-130-496-00	s	CAP, MYLAR 0.12 5% 50V
1-130-497-00	s	CAP, MYLAR 0.15 5% 50V
1-130-498-00	s	CAP, MYLAR 0.18 5% 50V
1-130-499-00	s	CAP, MYLAR 0.22 5% 50V
1-136-502-11	s	CAP, MYLAR 0.33 5% 50V

.MICA,SILVERED

Part No.	SP	Description
1-107-019-00	s	CAP, MICA 1.0pF ±0.5pF 500V
1-107-039-00	s	CAP, MICA 1.2pF ±0.5pF 500V
1-107-040-00	s	CAP, MICA 1.5pF ±0.5pF 500V
1-107-041-00	s	CAP, MICA 1.8pF ±0.5pF 500V
1-107-042-00	s	CAP, MICA 2.2pF ±0.5pF 500V
1-107-043-00	s	CAP, MICA 2.7pF ±0.5pF 500V
1-107-044-00	s	CAP, MICA 3.3pF ±0.5pF 500V
1-107-045-00	s	CAP, MICA 3.9pF ±0.5pF 500V
1-107-046-00	s	CAP, MICA 4.7pF ±0.5pF 500V
1-107-026-00	s	CAP, MICA 5.1pF ±0.5pF 500V
1-107-047-00	s	CAP, MICA 5.6pF ±0.5pF 500V
1-107-048-00	s	CAP, MICA 6.8pF ±0.5pF 500V
1-107-049-00	s	CAP, MICA 8.2pF ±0.5pF 500V
1-107-202-00	s	CAP, MICA 10pF 5% 500V
1-107-203-00	s	CAP, MICA 11pF 5% 500V
1-107-204-00	s	CAP, MICA 12pF 5% 500V
1-107-205-00	s	CAP, MICA 13pF 5% 500V
1-107-206-00	s	CAP, MICA 15pF 5% 500V
1-107-207-00	s	CAP, MICA 16pF 5% 500V
1-107-208-00	s	CAP, MICA 18pF 5% 500V
1-107-209-00	s	CAP, MICA 20pF 5% 500V
1-107-210-00	s	CAP, MICA 22pF 5% 500V
1-107-211-00	s	CAP, MICA 24pF 5% 500V
1-107-157-00	s	CAP, MICA 27pF 5% 500V
1-107-158-00	s	CAP, MICA 30pF 5% 500V
1-107-159-00	s	CAP, MICA 33pF 5% 500V
1-107-074-00	s	CAP, MICA 36pF 5% 50V
1-107-075-00	s	CAP, MICA 39pF 5% 50V
1-107-076-00	s	CAP, MICA 43pF 5% 50V
1-107-077-00	s	CAP, MICA 47pF 5% 50V
1-107-164-00	s	CAP, MICA 51pF 5% 500V
1-107-165-00	s	CAP, MICA 56pF 5% 500V
1-107-166-00	s	CAP, MICA 62pF 5% 500V
1-107-036-00	s	CAP, MICA 68pF 5% 500V
1-107-167-00	s	CAP, MICA 75pF 5% 500V
1-107-083-00	s	CAP, MICA 82pF 5% 50V
1-107-084-00	s	CAP, MICA 91pF 5% 50V
1-107-085-00	s	CAP, MICA 100pF 5% 50V
1-107-086-00	s	CAP, MICA 110pF 5% 50V
1-107-087-00	s	CAP, MICA 120pF 5% 50V
1-109-538-00	s	CAP, MICA 130pF 5% 100V
1-109-539-00	s	CAP, MICA 150pF 5% 100V
1-107-090-00	s	CAP, MICA 160pF 5% 50V
1-109-540-00	s	CAP, MICA 180pF 5% 100V
1-109-541-00	s	CAP, MICA 200pF 5% 100V
1-109-542-00	s	CAP, MICA 220pF 5% 100V
1-109-545-00	s	CAP, MICA 270pF 5% 100V
1-109-547-00	s	CAP, MICA 330pF 5% 100V
1-109-549-00	s	CAP, MICA 390pF 5% 100V
1-109-633-00	s	CAP, MICA 470pF 2% 500V
1-109-555-00	s	CAP, MICA 560pF 5% 100V
1-109-635-00	s	CAP, MICA 470pF 2% 500V

Part No.	SP	Description
.ELECTROLYTIC		
1-124-902-00	s	CAP, ELECT 0.47 20% 50V
1-124-791-11	s	CAP, ELECT 1.0 20% 100V
1-124-925-11	s	CAP, ELECT 2.2 20% 100V
1-123-382-00	s	CAP, ELECT 3.3 20% 100V
1-124-927-00	s	CAP, ELECT 4.7 20% 100V
1-123-875-91	s	CAP, ELECT 10 20% 50V
1-124-915-11	s	CAP, ELECT 10 20% 63V
1-124-667-11	s	CAP, ELECT 10 20% 100V
1-124-908-11	s	CAP, ELECT 22 20% 50V
1-124-916-11	s	CAP, ELECT 22 20% 63V
1-124-929-11	s	CAP, ELECT 22 20% 100V
1-124-963-11	s	CAP, ELECT 33 20% 16V
1-124-482-11	s	CAP, ELECT 33 20% 35V
1-124-917-11	s	CAP, ELECT 33 20% 63V
1-124-930-11	s	CAP, ELECT 33 20% 100V
1-124-446-11	s	CAP, ELECT 47 20% 10V
1-124-477-11	s	CAP, ELECT 47 20% 25V
1-124-910-11	s	CAP, ELECT 47 20% 50V
1-124-918-11	s	CAP, ELECT 47 20% 63V
1-124-931-11	s	CAP, ELECT 47 20% 100V
1-124-443-00	s	CAP, ELECT 100 20% 10V
1-126-101-11	s	CAP, ELECT 100 20% 16V
1-124-478-11	s	CAP, ELECT 100 20% 25V
1-124-122-11	s	CAP, ELECT 100 20% 50V
1-124-572-11	s	CAP, ELECT 100 20% 63V
1-123-605-00	s	CAP, ELECT 100 20% 100V
1-124-444-00	s	CAP, ELECT 220 20% 10V
1-124-120-11	s	CAP, ELECT 220 20% 25V
1-124-484-11	s	CAP, ELECT 220 20% 35V
1-124-911-11	s	CAP, ELECT 220 20% 50V
1-124-919-51	s	CAP, ELECT 220 20% 63V
1-124-628-11	s	CAP, ELECT 220 20% 100V
1-124-442-00	s	CAP, ELECT 330 20% 6.3V
1-124-604-00	s	CAP, ELECT 330 20% 10V
1-124-119-00	s	CAP, ELECT 330 20% 16V
1-124-479-11	s	CAP, ELECT 330 20% 25V
1-124-485-11	s	CAP, ELECT 330 20% 35V
1-124-912-11	s	CAP, ELECT 330 20% 50V
1-124-472-11	s	CAP, ELECT 470 20% 10V
1-124-475-11	s	CAP, ELECT 470 20% 16V
1-124-480-11	s	CAP, ELECT 470 20% 25V
1-126-104-11	s	CAP, ELECT 470 20% 35V
1-124-913-11	s	CAP, ELECT 470 20% 50V
1-124-921-11	s	CAP, ELECT 470 20% 63V
1-124-471-00	s	CAP, ELECT 1000 20% 6.3V
1-124-473-11	s	CAP, ELECT 1000 20% 10V
1-124-555-00	s	CAP, ELECT 1000 20% 16V
1-124-557-11	s	CAP, ELECT 1000 20% 25V
1-126-105-11	s	CAP, ELECT 1000 20% 35V
1-124-637-11	s	CAP, ELECT 1000 20% 50V
1-124-922-11	s	CAP, ELECT 1000 20% 63V
1-124-893-11	s	CAP, ELECT 2200 20% 10V
1-124-556-11	s	CAP, ELECT 2200 20% 16V
1-124-563-11	s	CAP, ELECT 2200 20% 25V
1-124-618-11	s	CAP, ELECT 2200 20% 35V
1-124-607-11	s	CAP, ELECT 2200 20% 50V
1-124-621-11	s	CAP, ELECT 3300 20% 6.3V
1-124-887-00	s	CAP, ELECT 3300 20% 16V
1-124-636-00	s	CAP, ELECT 3300 20% 25V
1-124-762-00	s	CAP, ELECT 4700 20% 10V
1-124-898-11	s	CAP, ELECT 4700 20% 16V
1-124-564-11	s	CAP, ELECT 4700 20% 25V
1-124-891-11	s	CAP, ELECT 10000 20% 6.3V
1-124-763-00	s	CAP, ELECT 10000 20% 10V

.CHIP, CERAMIC

Part No.	SP	Description
1-163-083-00	s	CAP, CHIP CERAMIC 1pF ±0.25pF 50V
1-163-085-00	s	CAP, CHIP CERAMIC 2pF ±0.25pF 50V
1-163-087-00	s	CAP, CHIP CERAMIC 4pF ±0.25pF 50V
1-163-089-00	s	CAP, CHIP CERAMIC 6pF ±0.5pF 50V
1-163-091-00	s	CAP, CHIP CERAMIC 8pF ±0.5pF 50V
1-163-093-00	s	CAP, CHIP CERAMIC 10pF 5% 50V
1-163-097-00	s	CAP, CHIP CERAMIC 15pF 5% 50V
1-163-101-00	s	CAP, CHIP CERAMIC 22pF 5% 50V
1-163-105-00	s	CAP, CHIP CERAMIC 33pF 5% 50V
1-163-109-00	s	CAP, CHIP CERAMIC 47pF 5% 50V
1-163-113-00	s	CAP, CHIP CERAMIC 68pF 5% 50V
1-163-117-00	s	CAP, CHIP CERAMIC 100pF 5% 50V
1-163-121-00	s	CAP, CHIP CERAMIC 150pF 5% 50V
1-163-125-00	s	CAP, CHIP CERAMIC 220pF 5% 50V
1-163-129-00	s	CAP, CHIP CERAMIC 330pF 5% 50V
1-163-133-00	s	CAP, CHIP CERAMIC 470pF 5% 50V
1-163-137-00	s	CAP, CHIP CERAMIC 680pF 5% 50V
1-163-141-00	s	CAP, CHIP CERAMIC 1000pF 5% 50V
1-163-145-00	s	CAP, CHIP CERAMIC 1500pF 10% 50V
1-163-013-00	s	CAP, CHIP CERAMIC 2200pF 10% 50V
1-163-015-00	s	CAP, CHIP CERAMIC 3300pF 10% 50V
1-163-017-00	s	CAP, CHIP CERAMIC 4700pF 10% 50V
1-163-019-00	s	CAP, CHIP CERAMIC 6800pF 10% 50V
1-163-021-00	s	CAP, CHIP CERAMIC 0.01 10% 50V
1-163-023-00	s	CAP, CHIP CERAMIC 0.015 10% 50V
1-163-034-00	s	CAP, CHIP CERAMIC 0.033 50V
1-163-035-00	s	CAP, CHIP CERAMIC 0.047 50V
1-163-036-00	s	CAP, CHIP CERAMIC 0.068 50V
1-163-038-00	s	CAP, CHIP CERAMIC 0.1 50V

INDUCTOR

.MICRO

Part No.	SP	Description
1-408-397-00	s	INDUCTOR, MICRO 1.0 5%
1-408-399-00	s	INDUCTOR, MICRO 1.5 5%
1-408-400-00	s	INDUCTOR, MICRO 1.8 5%
1-408-401-00	s	INDUCTOR, MICRO 2.2 5%
1-408-403-00	s	INDUCTOR, MICRO 3.3 5%
1-408-404-00	s	INDUCTOR, MICRO 3.9 5%
1-408-405-00	s	INDUCTOR, MICRO 4.7 5%
1-408-406-00	s	INDUCTOR, MICRO 5.6 5%
1-408-407-00	s	INDUCTOR, MICRO 6.8 5%
1-408-408-00	s	INDUCTOR, MICRO 8.2 5%
1-408-409-00	s	INDUCTOR, MICRO 10 5%
1-408-410-00	s	INDUCTOR, MICRO 12 5%
1-408-411-00	s	INDUCTOR, MICRO 15 5%
1-408-412-00	s	INDUCTOR, MICRO 18 5%
1-408-413-00	s	INDUCTOR, MICRO 22 5%
1-408-414-00	s	INDUCTOR, MICRO 27 5%
1-408-415-00	s	INDUCTOR, MICRO 33 5%
1-408-416-00	s	INDUCTOR, MICRO 39 5%
1-408-417-00	s	INDUCTOR, MICRO 47 5%
1-408-418-00	s	INDUCTOR, MICRO 56 5%
1-408-419-00	s	INDUCTOR, MICRO 68 5%
1-408-420-00	s	INDUCTOR, MICRO 82 5%
1-408-421-00	s	INDUCTOR, MICRO 100 5%
1-408-422-00	s	INDUCTOR, MICRO 120 5%
1-408-423-00	s	INDUCTOR, MICRO 150 5%
1-408-424-00	s	INDUCTOR, MICRO 180 5%
1-408-425-00	s	INDUCTOR, MICRO 220 5%
1-408-426-00	s	INDUCTOR, MICRO 270 5%
1-408-427-00	s	INDUCTOR, MICRO 330 5%
1-408-428-00	s	INDUCTOR, MICRO 390 5%
1-408-429-00	s	INDUCTOR, MICRO 470 5%
1-410-116-11	s	INDUCTOR, MICRO 560 5%
1-410-492-11	s	INDUCTOR, MICRO 680 5%
1-410-493-11	s	INDUCTOR, MICRO 820 5%
1-410-494-11	s	INDUCTOR, MICRO 1000 5%

RESISTOR

.CARBON

Part No.	SP	Description
1-249-381-11	s	RES, CARBON 1.0 5% 1/6W
1-249-382-11	s	RES, CARBON 1.2 5% 1/6W
1-249-383-11	s	RES, CARBON 1.5 5% 1/6W
1-249-384-11	s	RES, CARBON 1.8 5% 1/6W
1-249-385-11	s	RES, CARBON 2.2 5% 1/6W
1-249-386-11	s	RES, CARBON 2.7 5% 1/6W
1-249-387-11	s	RES, CARBON 3.3 5% 1/6W
1-249-388-11	s	RES, CARBON 3.9 5% 1/6W
1-249-389-11	s	RES, CARBON 4.7 5% 1/6W
1-249-390-11	s	RES, CARBON 5.6 5% 1/6W
1-249-391-11	s	RES, CARBON 6.8 5% 1/6W
1-249-392-11	s	RES, CARBON 8.2 5% 1/6W
1-249-393-11	s	RES, CARBON 10 5% 1/6W
1-249-394-11	s	RES, CARBON 12 5% 1/6W
1-249-395-11	s	RES, CARBON 15 5% 1/6W
1-249-396-11	s	RES, CARBON 18 5% 1/6W
1-249-397-11	s	RES, CARBON 22 5% 1/6W
1-249-398-11	s	RES, CARBON 27 5% 1/6W
1-249-399-11	s	RES, CARBON 33 5% 1/6W
1-249-400-11	s	RES, CARBON 39 5% 1/6W
1-249-401-11	s	RES, CARBON 47 5% 1/6W
1-249-402-11	s	RES, CARBON 56 5% 1/6W
1-249-403-11	s	RES, CARBON 68 5% 1/6W
1-215-394-00	s	RES, METAL 75 1% 1/6W
1-249-404-11	s	RES, CARBON 82 5% 1/6W
1-249-405-11	s	RES, CARBON 100 5% 1/6W
1-249-406-11	s	RES, CARBON 120 5% 1/6W
1-249-407-11	s	RES, CARBON 150 5% 1/6W
1-249-408-11	s	RES, CARBON 180 5% 1/6W
1-249-409-11	s	RES, CARBON 220 5% 1/6W
1-249-410-11	s	RES, CARBON 270 5% 1/6W
1-249-411-11	s	RES, CARBON 330 5% 1/6W
1-249-412-11	s	RES, CARBON 390 5% 1/6W
1-249-413-11	s	RES, CARBON 470 5% 1/6W
1-249-414-11	s	RES, CARBON 560 5% 1/6W
1-249-415-11	s	RES, CARBON 680 5% 1/6W
1-249-416-11	s	RES, CARBON 820 5% 1/6W
1-249-417-11	s	RES, CARBON 1.0k 5% 1/6W
1-249-418-11	s	RES, CARBON 1.2k 5% 1/6W
1-249-419-11	s	RES, CARBON 1.5k 5% 1/6W
1-249-420-11	s	RES, CARBON 1.8k 5% 1/6W
1-249-421-11	s	RES, CARBON 2.2k 5% 1/6W
1-249-422-11	s	RES, CARBON 2.7k 5% 1/6W
1-249-423-11	s	RES, CARBON 3.3k 5% 1/6W
1-249-424-11	s	RES, CARBON 3.9k 5% 1/6W
1-249-425-11	s	RES, CARBON 4.7k 5% 1/6W
1-249-426-11	s	RES, CARBON 5.6k 5% 1/6W
1-249-427-11	s	RES, CARBON 6.8k 5% 1/6W
1-249-428-11	s	RES, CARBON 8.2k 5% 1/6W
1-249-429-11	s	RES, CARBON 10k 5% 1/6W
1-249-430-11	s	RES, CARBON 12k 5% 1/6W
1-249-431-11	s	RES, CARBON 15k 5% 1/6W
1-249-432-11	s	RES, CARBON 18k 5% 1/6W
1-249-433-11	s	RES, CARBON 22k 5% 1/6W
1-249-434-11	s	RES, CARBON 27k 5% 1/6W
1-249-435-11	s	RES, CARBON 33k 5% 1/6W
1-249-436-11	s	RES, CARBON 39k 5% 1/6W
1-249-437-11	s	RES, CARBON 47k 5% 1/6W
1-249-438-11	s	RES, CARBON 56k 5% 1/6W
1-249-439-11	s	RES, CARBON 68k 5% 1/6W
1-249-440-11	s	RES, CARBON 82k 5% 1/6W
1-249-441-11	s	RES, CARBON 100k 5% 1/6W
1-215-471-00	s	RES, METAL 120k 1% 1/6W
1-215-473-00	s	RES, METAL 150k 1% 1/6W
1-215-475-00	s	RES, METAL 180k 1% 1/6W
1-215-477-00	s	RES, METAL 220k 1% 1/6W
1-215-479-00	s	RES, METAL 270k 1% 1/6W
1-215-481-00	s	RES, METAL 330k 1% 1/6W
1-215-483-00	s	RES, METAL 390k 1% 1/6W
1-215-485-00	s	RES, METAL 470k 1% 1/6W
1-215-487-00	s	RES, METAL 560k 1% 1/6W
1-215-489-00	s	RES, METAL 680k 1% 1/6W
1-215-491-00	s	RES, METAL 820k 1% 1/6W
1-215-493-00	s	RES, METAL 1.0M 1% 1/6W

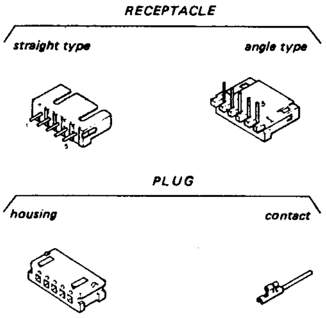
.METAL

Part No.	SP	Description
1-215-373-31	s	RES, METAL 10 1% 1/6W
1-215-374-00	s	RES, METAL 11 1% 1/6W
1-215-375-00	s	RES, METAL 12 1% 1/6W
1-215-376-00	s	RES, METAL 13 1% 1/6W
1-215-377-00	s	RES, METAL 15 1% 1/6W
1-215-378-00	s	RES, METAL 16 1% 1/6W
1-215-379-00	s	RES, METAL 18 1% 1/6W
1-215-380-00	s	RES, METAL 20 1% 1/6W
1-215-381-00	s	RES, METAL 22 1% 1/6W
1-215-382-00	s	RES, METAL 24 1% 1/6W
1-215-383-00	s	RES, METAL 27 1% 1/6W
1-215-384-00	s	RES, METAL 30 1% 1/6W
1-215-385-00	s	RES, METAL 33 1% 1/6W
1-215-386-00	s	RES, METAL 36 1% 1/6W
1-215-387-00	s	RES, METAL 39 1% 1/6W
1-215-388-00	s	RES, METAL 43 1% 1/6W
1-215-389-00	s	RES, METAL 47 1% 1/6W
1-215-390-00	s	RES, METAL 51 1% 1/6W
1-215-391-00	s	RES, METAL 56 1% 1/6W
1-215-392-00	s	RES, METAL 62 1% 1/6W
1-215-393-00	s	RES, METAL 68 1% 1/6W
1-215-394-00	s	RES, METAL 75 1% 1/6W
1-215-395-00	s	RES, METAL 82 1% 1/6W
1-215-396-00	s	RES, METAL 91 1% 1/6W
1-215-397-00	s	RES, METAL 100 1% 1/6W
1-215-398-00	s	RES, METAL 110 1% 1/6W
1-215-399-00	s	RES, METAL 120 1% 1/6W
1-215-400-00	s	RES, METAL 130 1% 1/6W
1-215-401-00	s	RES, METAL 150 1% 1/6W
1-215-402-00	s	RES, METAL 160 1% 1/6W
1-215-403-00	s	RES, METAL 180 1% 1/6W
1-215-404-00	s	RES, METAL 200 1% 1/6W
1-215-405-00	s	RES, METAL 220 1% 1/6W
1-215-406-00	s	RES, METAL 240 1% 1/6W
1-215-407-00	s	RES, METAL 270 1% 1/6W
1-215-408-00	s	RES, METAL 300 1% 1/6W
1-215-409-00	s	RES, METAL 330 1% 1/6W
1-215-410-00	s	RES, METAL 360 1% 1/6W
1-215-411-00	s	RES, METAL 390 1% 1/6W
1-215-412-00	s	RES, METAL 430 1% 1/6W
1-215-413-00	s	RES, METAL 470 1% 1/6W
1-215-414-00	s	RES, METAL 510 1% 1/6W
1-215-415-00	s	RES, METAL 560 1% 1/6W
1-215-416-00	s	RES, METAL 620 1% 1/6W
1-215-417-00	s	RES, METAL 680 1% 1/6W
1-215-418-00	s	RES, METAL 750 1% 1/6W
1-215-419-00	s	RES, METAL 820 1% 1/6W
1-215-420-00	s	RES, METAL 910 1% 1/6W
1-215-421-00	s	RES, METAL 1.0k 1% 1/6W
1-215-422-00	s	RES, METAL 1.1k 1% 1/6W
1-215-423-00	s	RES, METAL 1.2k 1% 1/6W
1-215-424-00	s	RES, METAL 1.3k 1% 1/6W
1-215-425-00	s	RES, METAL 1.5k 1% 1/6W
1-215-426-00	s	RES, METAL 1.6k 1% 1/6W
1-215-427-00	s	RES, METAL 1.8k 1% 1/6W
1-215-428-00	s	RES, METAL 2.0k 1% 1/6W
1-215-429-00	s	RES, METAL 2.2k 1% 1/6W
1-215-430-00	s	RES, METAL 2.4k 1% 1/6W
1-215-431-00	s	RES, METAL 2.7k 1% 1/6W
1-215-432-00	s	RES, METAL 3.0k 1% 1/6W
1-215-433-00	s	RES, METAL 3.3k 1% 1/6W
1-215-434-00	s	RES, METAL 3.6k 1% 1/6W
1-215-435-00	s	RES, METAL 3.9k 1% 1/6W
1-215-436-00	s	RES, METAL 4.3k 1% 1/6W
1-215-437-00	s	RES, METAL 4.7k 1% 1/6W
1-215-438-00	s	RES, METAL 5.1k 1% 1/6W
1-215-439-00	s	RES, METAL 5.6k 1% 1/6W
1-215-440-00	s	RES, METAL 6.2k 1% 1/6W
1-215-441-00	s	RES, METAL 6.8k 1% 1/6W
1-215-442-00	s	RES, METAL 7.5k 1% 1/6W
1-215-443-00	s	RES, METAL 8.2k 1% 1/6W
1-215-444-00	s	RES, METAL 9.1k 1% 1/6W
1-215-445-00	s	RES, METAL 10k 1% 1/6W
1-215-446-00	s	RES, METAL 11k 1% 1/6W
1-215-447-00	s	RES, METAL 12k 1% 1/6W
1-215-448-00	s	RES, METAL 13k 1% 1/6W
1-215-449-00	s	RES, METAL 15k 1% 1/6W
1-215-450-00	s	RES, METAL 16k 1% 1/6W
1-215-451-00	s	RES, METAL 18k 1% 1/6W
1-215-452-00	s	RES, METAL 20k 1% 1/6W
1-215-453-00	s	RES, METAL 22k 1% 1/6W
1-215-454-00	s	RES, METAL 24k 1% 1/6W
1-215-455-00	s	RES, METAL 27k 1% 1/6W
1-215-456-00	s	RES, METAL 30k 1% 1/6W
1-215-457-00	s	RES, METAL 33k 1% 1/6W
1-215-458-00	s	RES, METAL 36k 1% 1/6W
1-215-459-00	s	RES, METAL 39k 1% 1/6W
1-215-460-00	s	RES, METAL 43k 1% 1/6W
1-215-461-00	s	RES, METAL 47k 1% 1/6W
1-215-462-00	s	RES, METAL 51k 1% 1/6W
1-215-463-00	s	RES, METAL 56k 1% 1/6W
1-215-464-00	s	RES, METAL 62k 1% 1/6W
1-215-465-00	s	RES, METAL 68k 1% 1/6W
1-215-466-00	s	RES, METAL 75k 1% 1/6W
1-215-467-00	s	RES, METAL 82k 1% 1/6W
1-215-468-00	s	RES, METAL 91k 1% 1/6W
1-215-469-00	s	RES, METAL 100k 1% 1/6W
1-215-470-00	s	RES, METAL 110k 1% 1/6W
1-215-471-00	s	RES, METAL 120k 1% 1/6W
1-215-472-00	s	RES, METAL 130k 1% 1/6W
1-215-473-00	s	RES, METAL 150k 1% 1/6W
1-215-474-00	s	RES, METAL 160k 1% 1/6W
1-215-475-00	s	RES, METAL 180k 1% 1/6W
1-215-476-00	s	RES, METAL 200k 1% 1/6W
1-215-477-00	s	RES, METAL 220k 1% 1/6W
1-215-478-00	s	RES, METAL 240k 1% 1/6W
1-215-479-00	s	RES, METAL 270k 1% 1/6W
1-215-480-00	s	RES, METAL 300k 1% 1/6W
1-215-481-00	s	RES, METAL 330k 1% 1/6W
1-215-482-00	s	RES, METAL 360k 1% 1/6W
1-215-483-00	s	RES, METAL 390k 1% 1/6W
1-215-484-00	s	RES, METAL 430k 1% 1/6W
1-215-485-00	s	RES, METAL 470k 1% 1/6W
1-215-486-00	s	RES, METAL 510k 1% 1/6W
1-215-487-00	s	RES, METAL 560k 1% 1/6W
1-215-488-00	s	RES, METAL 620k 1% 1/6W
1-215-489-00	s	RES, METAL 680k 1% 1/6W
1-215-490-00	s	RES, METAL 750k 1% 1/6W
1-215-491-00	s	RES, METAL 820k 1% 1/6W
1-215-492-00	s	RES, METAL 910k 1% 1/6W
1-215-493-00	s	RES, METAL 1.0M 1% 1/6W

Part No.	SP	Description
.CHIP		
1-216-295-00	s	RES, CHIP 0 5% 1/10W
1-216-298-00	s	RES, CHIP 2.2 5% 1/10W
1-216-302-00	s	RES, CHIP 2.7 5% 1/10W
1-216-304-00	s	RES, CHIP 3.3 5% 1/10W
1-216-306-00	s	RES, CHIP 3.9 5% 1/10W
1-216-308-00	s	RES, CHIP 4.7 5% 1/10W
1-216-309-00	s	RES, CHIP 5.6 5% 1/10W
1-216-311-00	s	RES, CHIP 6.8 5% 1/10W
1-216-313-00	s	RES, CHIP 8.2 5% 1/10W
1-216-001-00	s	RES, CHIP 10 5% 1/10W
1-216-003-00	s	RES, CHIP 12 5% 1/10W
1-216-005-00	s	RES, CHIP 15 5% 1/10W
1-216-007-00	s	RES, CHIP 18 5% 1/10W
1-216-009-00	s	RES, CHIP 22 5% 1/10W
1-216-011-00	s	RES, CHIP 27 5% 1/10W
1-216-013-00	s	RES, CHIP 33 5% 1/10W
1-216-015-00	s	RES, CHIP 39 5% 1/10W
1-216-017-00	s	RES, CHIP 47 5% 1/10W
1-216-019-00	s	RES, CHIP 56 5% 1/10W
1-216-021-00	s	RES, CHIP 68 5% 1/10W
1-216-023-00	s	RES, CHIP 82 5% 1/10W
1-216-025-00	s	RES, CHIP 100 5% 1/10W
1-216-027-00	s	RES, CHIP 120 5% 1/10W
1-216-029-00	s	RES, CHIP 150 5% 1/10W
1-216-031-00	s	RES, CHIP 180 5% 1/10W
1-216-033-00	s	RES, CHIP 220 5% 1/10W
1-216-035-00	s	RES, CHIP 270 5% 1/10W
1-216-037-00	s	RES, CHIP 330 5% 1/10W
1-216-039-00	s	RES, CHIP 390 5% 1/10W
1-216-041-00	s	RES, CHIP 470 5% 1/10W
1-216-043-00	s	RES, CHIP 560 5% 1/10W
1-216-045-00	s	RES, CHIP 680 5% 1/10W
1-216-047-00	s	RES, CHIP 820 5% 1/10W
1-216-049-00	s	RES, CHIP 1k 5% 1/10W
1-216-051-00	s	RES, CHIP 1.2k 5% 1/10W
1-216-053-00	s	RES, CHIP 1.5k 5% 1/10W
1-216-055-00	s	RES, CHIP 1.8k 5% 1/10W
1-216-057-00	s	RES, CHIP 2.2k 5% 1/10W
1-216-059-00	s	RES, CHIP 2.7k 5% 1/10W
1-216-061-00	s	RES, CHIP 3.3k 5% 1/10W
1-216-063-00	s	RES, CHIP 3.9k 5% 1/10W
1-216-065-00	s	RES, CHIP 4.7k 5% 1/10W
1-216-067-00	s	RES, CHIP 5.6k 5% 1/10W
1-216-069-00	s	RES, CHIP 6.8k 5% 1/10W
1-216-071-00	s	RES, CHIP 8.2k 5% 1/10W
1-216-073-00	s	RES, CHIP 10k 5% 1/10W
1-216-075-00	s	RES, CHIP 12k 5% 1/10W
1-216-077-00	s	RES, CHIP 15k 5% 1/10W
1-216-079-00	s	RES, CHIP 18k 5% 1/10W
1-216-081-00	s	RES, CHIP 22k 5% 1/10W
1-216-083-00	s	RES, CHIP 27k 5% 1/10W
1-216-085-00	s	RES, CHIP 33k 5% 1/10W
1-216-087-00	s	RES, CHIP 39k 5% 1/10W
1-216-089-00	s	RES, CHIP 47k 5% 1/10W
1-216-091-00	s	RES, CHIP 56k 5% 1/10W
1-216-093-00	s	RES, CHIP 68k 5% 1/10W
1-216-095-00	s	RES, CHIP 82k 5% 1/10W
1-216-097-00	s	RES, CHIP 100k 5% 1/10W
1-216-099-00	s	RES, CHIP 120k 5% 1/10W
1-216-101-00	s	RES, CHIP 150k 5% 1/10W
1-216-103-00	s	RES, CHIP 180k 5% 1/10W
1-216-105-00	s	RES, CHIP 220k 5% 1/10W
1-216-107-00	s	RES, CHIP 270k 5% 1/10W
1-216-109-00	s	RES, CHIP 330k 5% 1/10W
1-216-111-00	s	RES, CHIP 390k 5% 1/10W
1-216-113-00	s	RES, CHIP 470k 5% 1/10W
1-216-115-00	s	RES, CHIP 560k 5% 1/10W
1-216-117-00	s	RES, CHIP 680k 5% 1/10W
1-216-119-00	s	RES, CHIP 820k 5% 1/10W
1-216-121-00	s	RES, CHIP 1.0M 5% 1/10W
1-216-123-00	s	RES, CHIP 1.2M 5% 1/10W
1-216-125-00	s	RES, CHIP 1.5M 5% 1/10W
1-216-127-00	s	RES, CHIP 1.8M 5% 1/10W
1-216-129-00	s	RES, CHIP 2.2M 5% 1/10W
1-216-131-00	s	RES, CHIP 2.7M 5% 1/10W
1-216-133-00	s	RES, CHIP 3.3M 5% 1/10W

CONNECTOR

Part No.	SP	Description
1-564-001-11	o	RECEPTACLE 2P MALE (STRAIGHT TYPE)
1-564-012-11	o	RECEPTACLE 2P MALE (ANGLE TYPE)
1-562-147-11	o	HOUSING 2P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-002-11	o	RECEPTACLE 3P MALE (STRAIGHT TYPE)
1-564-013-11	o	RECEPTACLE 3P MALE (ANGLE TYPE)
1-562-148-11	o	HOUSING 3P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-003-11	o	RECEPTACLE 4P MALE (STRAIGHT TYPE)
1-564-014-11	o	RECEPTACLE 4P MALE (ANGLE TYPE)
1-562-149-11	o	HOUSING 4P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-004-11	o	RECEPTACLE 5P MALE (STRAIGHT TYPE)
1-564-015-11	o	RECEPTACLE 5P MALE (ANGLE TYPE)
1-562-150-11	o	HOUSING 5P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-005-11	o	RECEPTACLE 6P MALE (STRAIGHT TYPE)
1-564-016-11	o	RECEPTACLE 6P MALE (ANGLE TYPE)
1-562-151-11	o	HOUSING 6P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-006-11	o	RECEPTACLE 7P MALE (STRAIGHT TYPE)
1-564-017-11	o	RECEPTACLE 7P MALE (ANGLE TYPE)
1-562-152-11	o	HOUSING 7P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-007-11	o	RECEPTACLE 8P MALE (STRAIGHT TYPE)
1-564-018-11	o	RECEPTACLE 8P MALE (ANGLE TYPE)
1-562-153-11	o	HOUSING 8P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-008-41	o	RECEPTACLE 9P MALE (STRAIGHT TYPE)
1-564-019-11	o	RECEPTACLE 9P MALE (ANGLE TYPE)
1-562-154-11	o	HOUSING 9P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-009-11	o	RECEPTACLE 10P MALE (STRAIGHT TYPE)
1-564-020-11	o	RECEPTACLE 10P MALE (ANGLE TYPE)
1-562-155-11	o	HOUSING 10P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-010-21	o	RECEPTACLE 11P MALE (STRAIGHT TYPE)
1-564-021-11	o	RECEPTACLE 11P MALE (ANGLE TYPE)
1-562-156-11	o	HOUSING 11P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-011-11	o	RECEPTACLE 12P MALE (STRAIGHT TYPE)
1-564-022-11	o	RECEPTACLE 12P MALE (ANGLE TYPE)
1-562-157-11	o	HOUSING 12P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-683-11	o	RECEPTACLE 13P MALE (STRAIGHT TYPE)
1-564-743-11	o	RECEPTACLE 13P MALE (ANGLE TYPE)
1-562-627-11	o	HOUSING 13P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-069-11	o	RECEPTACLE 14P MALE (STRAIGHT TYPE)
1-564-630-11	o	RECEPTACLE 14P MALE (ANGLE TYPE)
1-562-185-11	o	HOUSING 14P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32
1-564-855-11	o	RECEPTACLE 15P MALE (STRAIGHT TYPE)
1-564-877-11	o	RECEPTACLE 15P MALE (ANGLE TYPE)
1-562-958-11	o	HOUSING 15P
1-564-026-21	o	CONTACT AWG24-30
1-564-681-21	o	CONTACT AWG32



AC-65 BOARD

Ref No.	Parts No.	SP	Description
	1-618-591-11	o	PRINTED CIRCUIT BOARD, AC-65
	1-533-189-11	o	HOLDER, FUSE
⚠CN1	1-506-371-00	o	2P PLUG (L)
⚠F1	1-532-743-11	s	FUSE, GLASS TUBE 2.0A 125V

AU-82A BOARD

Ref No.	Parts No.	SP	Description
	A-6713-280-A	o	MOUNTED CIRCUIT BOARD, AU-82A
C102	1-162-286-31	s	CERAMIC 220PF 10% 50V
C304	1-162-286-31	s	CERAMIC 220PF 10% 50V
D52	8-719-911-19	s	1SS119
D53	8-719-911-19	s	1SS119
D103	8-719-911-19	s	1SS119
D104	8-719-109-91	s	RD6.2ES-B
D151	8-719-109-91	s	RD6.2ES-B
D303	8-719-911-19	s	1SS119
D351	8-719-109-91	s	RD6.2ES-B
D501	8-719-109-91	s	RD6.2ES-B
D503	8-719-200-77	s	10E2N
D504	8-719-911-19	s	1SS119
D505	8-719-911-19	s	1SS119
IC51	8-759-802-46	s	LA4550 (SANYO)
IC101	8-759-700-04	s	NJM2043D-D (JRC)
IC102	8-759-705-62	s	NJM4562D-D (JRC)
LV101	1-459-434-00	s	VAR 22mH
LV302	1-459-434-00	s	VAR 22mH
Q7	8-729-201-05	s	2SC2878-B
Q8	8-729-178-55	s	2SC2785-E
Q51	8-729-201-05	s	2SC2878-B
Q53	8-729-178-55	s	2SC2785-E
Q54	8-729-201-05	s	2SC2878-B
Q55	8-729-201-05	s	2SC2878-B
Q106	8-729-201-05	s	2SC2878-B
Q206	8-729-201-05	s	2SC2878-B
Q207	8-729-178-55	s	2SC2785-E
Q251	8-729-201-05	s	2SC2878-B
Q306	8-729-201-05	s	2SC2878-B
Q403	8-729-117-54	s	2SA1175-K
Q501	8-729-178-55	s	2SC2785-E
Q502	8-729-113-33	s	2SB733-4
Q503	8-729-117-56	s	2SA1175-K
R177	1-247-887-00	s	CARBON 220k 5% 1/4W
R124	1-247-881-00	s	CARBON 120k 5% 1/4W
R126	1-247-881-00	s	CARBON 120k 5% 1/4W
R321	1-247-887-00	s	CARBON 220k 5% 1/4W
R327	1-247-881-00	s	CARBON 120k 5% 1/4W
R329	1-247-881-00	s	CARBON 120k 5% 1/4W
R507	1-247-885-00	s	CARBON 180k 5% 1/4W
R509	1-247-744-11	s	CARBON 270 5% 1/2W
RV101	1-228-994-00	s	VAR, CARBON 10k
RV102	1-228-994-00	s	VAR, CARBON 10k
RV103	1-228-993-00	s	VAR, CARBON 4.7k
RV302	1-228-994-00	s	VAR, CARBON 10k
RV303	1-228-994-00	s	VAR, CARBON 10k
RV304	1-228-993-00	s	VAR, CARBON 4.7k

AU-89A BOARD

Ref No.	Parts No.	SP	Description
	A-6713-281-A	o	MOUNTED CIRCUIT BOARD, AU-89A
C3	1-136-230-00	s	FILM 0.0022 3% 100V
C4	1-136-230-00	s	FILM 0.0022 3% 100V
C5	1-136-257-00	s	FILM 0.0039 3% 100V
C6	1-131-345-00	s	TANTALUM 0.47 10% 35V
C10	1-136-169-00	s	MYLAR 0.22 10% 50V
C11	1-136-163-00	s	MYLAR 0.068 10% 50V
C13	1-130-339-00	s	FILM 0.0056 3% 100V
C103	1-136-230-00	s	FILM 0.0022 3% 100V
C104	1-136-230-00	s	FILM 0.0022 3% 100V
C105	1-136-257-00	s	FILM 0.0039 3% 100V
C106	1-131-345-00	s	TANTALUM 0.47 10% 35V
C110	1-136-169-00	s	MYLAR 0.22 10% 50V
C111	1-136-163-00	s	MYLAR 0.068 10% 50V
C113	1-130-339-00	s	FILM 0.0056 3% 100V
C201	1-131-372-00	s	TANTALUM 15 10% 16V
C202	1-131-363-00	s	TANTALUM 4.7 10% 16V
C203	1-136-164-00	s	MYLAR 0.082 10% 50V
C204	1-131-372-00	s	TANTALUM 15 10% 16V
C205	1-131-363-00	s	TANTALUM 4.7 10% 16V
C206	1-136-153-00	s	MYLAR 0.01 10% 50V
C207	1-136-164-00	s	MYLAR 0.082 10% 50V
C301	1-131-404-00	s	ELECT (SOLID) 0.22 10% 25V
C303	1-131-372-00	s	TANTALUM 15 10% 16V
C306	1-131-372-00	s	TANTALUM 15 10% 16V
C308	1-136-164-00	s	MYLAR 0.082 10% 50V
C309	1-136-164-00	s	MYLAR 0.082 10% 50V
C310	1-136-168-00	s	MYLAR 0.18 10% 50V
C311	1-136-168-00	s	MYLAR 0.18 10% 50V
C312	1-136-168-00	s	MYLAR 0.18 10% 50V
C313	1-136-168-00	s	MYLAR 0.18 10% 50V
C314	1-130-519-00	s	MYLAR 0.018 10% 50V
C315	1-130-519-00	s	MYLAR 0.018 10% 50V
C316	1-136-153-00	s	MYLAR 0.01 10% 50V
C317	1-136-153-00	s	MYLAR 0.01 10% 50V
C352	1-136-153-00	s	MYLAR 0.01 10% 50V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref No.	Parts No.	SP	Description
CN252	1-506-821-11	o	HOUSING, BOARD IN CONNECTOR 12P
CN251	1-562-739-11	o	HOUSING, CONNECTOR 6P
CN253	1-506-821-11	o	HOUSING, BOARD IN CONNECTOR 12P
	1-563-186-11	o	HOUSING, CONNECTOR 12P
CP1	1-236-010-11	s	FILTER, LOW PASS
CP101	1-236-010-11	s	FILTER, LOW PASS
D201	8-719-109-91	s	RD6.2ESB
D202	8-719-911-10	s	1SS119
D206	8-719-911-10	s	1SS119
D301	8-719-911-19	s	1SS119
D302	8-719-911-19	s	1SS119
D303	8-719-911-19	s	1SS119
D304	8-719-911-19	s	1SS119
D305	8-719-911-19	s	1SS119
D306	8-719-911-19	s	1SS119
D307	8-719-109-91	s	RD6.2ESB
IC1	8-752-018-80	s	CX20188 (SONY)
IC201	8-759-205-76	s	TC504013BP (TOSHIBA)
IC202	8-759-705-58	s	NJM4558D-D (JRC)
IC203	8-759-240-71	s	TC4071BP (TOSHIBA)
IC204	8-759-240-11	s	TC4011BP (TOSHIBA)
IC205	8-759-240-11	s	TC4011BP (TOSHIBA)
IC301	8-759-132-40	s	UPC324C (NEC)
IC302	8-759-132-40	s	UPC324C (NEC)
IC303	8-759-969-13	s	SN16913P (TI)
IC304	8-759-969-13	s	SN16913P (TI)
IC305	8-759-969-13	s	SN16913P (TI)
IC306	8-759-969-13	s	SN16913P (TI)
Q201	8-729-900-89	s	DTC144ES
Q204	8-729-178-55	s	2SC2785-E
Q206	8-729-900-65	s	DTA144ES
Q208	8-729-900-65	s	DTA144ES
Q306	8-729-117-54	s	2SA1175-K
Q307	8-729-117-54	s	2SA1175-K
Q308	8-729-117-54	s	2SA1175-K
Q309	8-729-117-54	s	2SA1175-K
R209	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R231	1-247-887-00	s	CARBON 220k 5% 1/4W
R301	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R318	1-247-885-00	s	CARBON 180k 5% 1/4W
R319	1-247-885-00	s	CARBON 180k 5% 1/4W
R322	1-247-895-00	s	CARBON 470k 5% 1/4W
R323	1-247-895-00	s	CARBON 470k 5% 1/4W
R324	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R325	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R326	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R327	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R330	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R331	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R332	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R333	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R338	1-247-869-00	s	CARBON 39k 5% 1/4W
R339	1-247-881-00	s	CARBON 120k 5% 1/4W
R340	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R343	1-247-887-00	s	CARBON 220k 5% 1/4W

Ref No.	Parts No.	SP	Description
RV11	1-230-722-11	s	VAR, CARBON 22k
RV111	1-230-722-11	s	VAR, CARBON 22k
RV312	1-230-725-11	s	VAR, CARBON 220k
RV313	1-230-722-11	s	VAR, CARBON 22k
RV314	1-230-722-11	s	VAR, CARBON 22k
RV315	1-230-718-11	s	VAR, CARBON 1k
RV316	1-230-718-11	s	VAR, CARBON 1k
RV317	1-230-722-11	s	VAR, CARBON 22k

CC-31 BOARD

Ref No.	Parts No.	SP	Description
	1-622-255-11	o	PRINTED CIRCUIT BOARD, CC-31

CC-32 BOARD

Ref No.	Parts No.	SP	Description
	1-622-256-11	o	PRINTED CIRCUIT BOARD, CC-32
IC1	8-719-940-86	s	GP1L53 "CASSETTE IN DET"

CC-33 BOARD

Ref No.	Parts No.	SP	Description
	1-622-257-11	o	PRINTED CIRCUIT BOARD, CC-33
IC1	8-719-940-86	s	GP1L53 "CASSETTE DOWN DET"

CP-112A BOARD

Ref No.	Parts No.	SP	Description
	A-6713-282-A	o	MOUNTED CIRCUIT BOARD, CP-112A
C7	1-162-207-31	s	CERAMIC 22PF 5% 50V
C12	1-162-207-31	s	CERAMIC 22PF 5% 50V
C14	1-130-497-00	s	MYLAR 0.15 5% 50V
IC1	8-759-802-47	s	IC LA4500 (SANYO)
Q1	8-729-201-05	s	2SC2878-B
Q2	8-729-201-05	s	2SC2878-B
R17	1-247-775-00	s	CARBON 4.7 5% 1/4W
R18	1-247-775-00	s	CARBON 4.7 5% 1/4W
T3	1-427-586-11	s	INPUT/OUTPUT
T4	1-427-586-11	s	INPUT/OUTPUT

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DC-31 BOARD

Ref No.	Parts No.	SP	Description
	1-622-221-11	o	PRINTED CIRCUIT BOARD, DC-31
	1-533-189-11	o	HOLDER, FUSE
	1-561-432-00	o	CONNECTOR CONTACT
	1-561-424-00	o	SOCKET, CONNECTOR 5P
C2	1-161-379-00	s	CERAMIC 0.01 20% 16V
CN005	1-562-738-11	o	HOUSING, CONNECTOR 5P
⚠ F1	1-532-745-11	s	FUSE, GLASS TUBE 3.15A 125V
F2	1-532-744-11	s	FUSE, GLASS TUBE 2.5A 125V
F3	1-532-742-11	s	FUSE, GLASS TUBE 1.6A 125V
IC1	8-759-938-15	s	BA178M05 (ROHM)

DUS-92 BOARD

Ref No.	Parts No.	SP	Description
	1-615-924-11	o	PRINTED CIRCUIT BOARD, DUS-92
H1003	8-825-578-41	s	ACE HEAD

DUS-147 BOARD

Ref No.	Parts No.	SP	Description
	1-622-261-11	o	PRINTED CIRCUIT BOARD, DUS-147

EC-28 BOARD

Ref No.	Parts No.	SP	Description
	1-622-223-11	o	PRINTED CIRCUIT BOARD, EC-28
H1002	8-825-514-20	s	CTL ERASE (PP170-58)

HP-30 BOARD

Ref No.	Parts No.	SP	Description
	1-622-220-11	o	PRINTED CIRCUIT BOARD, HP-30
CN1013	1-507-854-00	s	JACK, LARGE TYPE "HEADPHONES"
RV1001	1-237-703-11	s	VAR, CARBON 2k/2k "HEADPHONES LEVEL"

IF-132 BOARD

Ref No.	Parts No.	SP	Description
	A-6717-450-A	o	MOUNTED CIRCUIT BOARD, IF-132
C2	1-161-021-11	s	CERAMIC 0.047 10% 25V
C4	1-161-021-11	s	CERAMIC 0.047 10% 25V
C6	1-162-290-31	s	CERAMIC 470PF 10% 50V
C7	1-161-013-00	s	CERAMIC 0.01 10% 25V
C9	1-162-290-31	s	CERAMIC 470PF 10% 50V
C10	1-162-290-31	s	CERAMIC 470PF 10% 50V
C12	1-161-013-00	s	CERAMIC 0.01 10% 25V
C13	1-161-013-00	s	CERAMIC 0.01 10% 25V
C14	1-161-013-00	s	CERAMIC 0.01 10% 25V
C15	1-162-211-31	s	CERAMIC 33PF 5% 50V
C16	1-162-211-31	s	CERAMIC 33PF 5% 50V
C17	1-161-043-00	s	CERAMIC 0.0022 10% 25V
C18	1-161-379-00	s	CERAMIC 0.01 30% 16V
C19	1-161-379-00	s	CERAMIC 0.01 30% 16V
C20	1-161-379-00	s	CERAMIC 0.01 30% 16V
C21	1-161-379-00	s	CERAMIC 0.01 30% 16V
C22	1-161-379-00	s	CERAMIC 0.01 30% 16V
C23	1-161-379-00	s	CERAMIC 0.01 30% 16V
C24	1-161-379-00	s	CERAMIC 0.01 30% 16V
C26	1-162-294-31	s	CERAMIC 0.001 10% 50V
CN1021	1-566-615-11	s	CONNECTOR, SQUARE 33P "REMOTE"
CN1022	1-562-900-11	s	JACK (SMALL TYPE) "RX DATA"
D1	8-719-911-19	s	1SS119
D2	8-719-911-19	s	1SS119
D3	8-719-911-19	s	1SS119
D4	8-719-911-19	s	1SS119
D5	8-719-911-19	s	1SS119
D6	8-719-911-19	s	1SS119
D7	8-719-911-19	s	1SS119
D8	8-719-911-19	s	1SS119
D9	8-719-911-19	s	1SS119
D10	8-719-911-19	s	1SS119
D11	8-719-911-19	s	1SS119
D12	8-719-911-19	s	1SS119
D13	8-719-911-19	s	1SS119
D14	8-719-911-19	s	1SS119
D15	8-719-911-19	s	1SS119

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref No.	Parts No.	SP	Description
D16	8-719-911-19	s	1SS119
D17	8-719-911-19	s	1SS119
D18	8-719-911-19	s	1SS119
D19	8-719-911-19	s	1SS119
D20	8-719-911-19	s	1SS119
D21	8-719-911-19	s	1SS119
D22	8-719-911-19	s	1SS119
IC1	8-759-600-61	s	M54529AP (MITSUBISHI)
IC2	8-759-600-61	s	M54529AP (MITSUBISHI)
IC3	8-759-600-61	s	M54529AP (MITSUBISHI)
IC4	8-759-600-61	s	M54529AP (MITSUBISHI)
IC5	8-759-345-38	s	HD14538BP (HITACHI)
IC6	8-759-207-73	s	TC4030BPHB (TOSHIBA)
IC7	8-759-240-69	s	TC4069UBP (TOSHIBA)
IC8	8-759-945-42	s	MB88505-548M (FUJITSU)
Q1	8-729-900-89	s	DTC144ES
Q2	8-729-900-89	s	DTC144ES
Q3	8-729-900-89	s	DTC144ES
Q4	8-729-900-89	s	DTC144ES
Q5	8-729-900-89	s	DTC144ES
R11	1-247-895-00	s	CARBON 470k 5% 1/4W
R37	1-247-887-00	s	CARBON 220k 5% 1/4W
R62	1-247-891-00	s	CARBON 330k 5% 1/4W
R73	1-247-887-00	s	CARBON 220k 5% 1/4W
X1	1-567-143-00	s	CERAMIC, 6MHz

KY-105A BOARD

Ref No.	Parts No.	SP	Description
	A-6717-455-A	o	MOUNTED CIRCUIT BOARD, KY-105A
BT1	1-528-227-11	o	BATTERY, LITHIUM (CR-2032)
C1	1-162-211-31	s	CERAMIC 33PF 5% 50V
C2	1-162-211-31	s	CERAMIC 33PF 5% 50V
C4	1-161-021-11	s	CERAMIC 0.047 10% 25V
C7	1-162-286-31	s	CERAMIC 220PF 10% 50V
C8	1-162-286-31	s	CERAMIC 220PF 10% 50V
C9	1-162-286-31	s	CERAMIC 220PF 10% 50V
C10	1-162-286-31	s	CERAMIC 220PF 10% 50V
C11	1-162-286-31	s	CERAMIC 220PF 10% 50V
C12	1-161-021-11	s	CERAMIC 0.047 10% 25V
C13	1-125-443-11	s	ELECT 0.047 5.5V
CP1	1-560-914-00	s	CONNECTOR POST 2P
CS1	1-561-724-00	s	CONNECTOR SOCKET 2P
D1	8-719-911-19	s	1SS119
D2	8-719-911-19	s	1SS119
D5	8-719-911-19	s	1SS119
D6	8-719-911-19	s	1SS119
D7	8-719-911-19	s	1SS119
D8	8-719-904-55	s	GL-5HD5
D10	8-719-911-19	s	1SS119
D11	8-719-802-11	s	TLUG154
D12	8-719-911-19	s	1SS119
D14	8-719-911-19	s	1SS119
D15	8-719-911-19	s	1SS119
D18	8-719-904-55	s	GL-5HD5
D21	8-719-904-55	s	GL-5HD5
D22	8-719-911-19	s	1SS119
D23	8-719-911-19	s	1SS119
D24	8-719-911-19	s	1SS119
D25	8-719-904-55	s	GL-5HD5
D26	8-719-911-19	s	1SS119
D27	8-719-802-11	s	TLUG154
D28	8-719-802-24	s	TLUY154
D29	8-719-802-24	s	TLUY154
D30	8-719-802-24	s	TLUY154
D31	8-719-802-11	s	TLUG154
D32	8-719-911-19	s	1SS119
D33	8-719-911-19	s	1SS119
D34	8-719-911-19	s	1SS119
IC1	8-759-645-17	s	M54517P (MITSUBISHI)
IC2	8-759-945-40	s	MB88525-178M (FUJITSU)
IC3	8-759-240-42	s	TC4042BP (TOSHIBA)
L1	1-407-488-00	s	470uH
ND701	1-807-441-21	s	LED BLOCK
Q1	8-729-900-65	s	DTA144ES
Q2	8-729-900-65	s	DTA144ES
Q3	8-729-900-65	s	DTA144ES
Q4	8-729-900-65	s	DTA144ES
Q5	8-729-900-65	s	DTA144ES

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref No.	Parts No.	SP	Description
Q6	8-729-900-65	s	DTA144ES
Q7	8-729-117-54	s	2SA1175
Q8	8-729-117-54	s	2SA1175
Q9	8-729-117-54	s	2SA1175
Q10	8-729-117-54	s	2SA1175
Q11	8-729-117-54	s	2SA1175
Q13	8-729-117-54	s	2SA1175
014	8-729-117-54	s	2SA1175
Q16	8-729-900-65	s	DTA144ES
Q19	8-729-900-65	s	DTA144ES
Q20	8-729-900-65	s	DTA144ES
Q21	8-729-900-65	s	DTA144ES
Q22	8-729-900-65	s	DTA144ES
Q23	8-729-900-65	s	DTA144ES
Q24	8-729-900-65	s	DTA144ES
Q30	8-729-900-36	s	DTC124ES
R75	1-247-736-11	s	CARBON 56 5% 1/2W
S1	1-570-145-11	s	LEVER SLIDE "FRAME/CTL"
S2	1-553-739-21	s	KEY "RESET"
S4	1-553-739-21	s	KEY "MARK A"
S5	1-553-739-21	s	KEY "MARK B"
S6	1-552-539-00	s	KEY "SEARCH"
S7	1-516-995-00	s	LEVER SLIDE "PROGRAM OPERATION"
S8	1-552-539-00	s	KEY "PAUSE"
S10	1-552-539-00	s	KEY "FF"
S12	1-552-539-00	s	KEY "PLAY"
S13	1-552-539-00	s	KEY "REW"
S14	1-552-539-00	s	KEY "EJECT"
S15	1-552-539-00	s	KEY "STOP"
S16	1-571-116-11	s	LEVER SLIDE "TBC"
S18	1-516-298-00	s	LEVER SLIDE "AUDIO MONITOR"
X1	1-567-143-00	s	CERAMIC, 6MHz

LM-13 BOARD

Ref No.	Parts No.	SP	Description
	1-618-600-11	o	PRINTED CIRCUIT BOARD, LM-13
C1	1-130-471-00	s	PE TEREPHTHALATE 0.001 5% 50V
C2	1-130-471-00	s	PE TEREPHTHALATE 0.001 5% 50V
M1003	1-541-376-11	s	DC (DNR-4700A) "THREADING"

LP-41 BOARD

Ref No.	Parts No.	SP	Description
	1-623-101-11	o	PRINTED CIRCUIT BOARD, LP-41
D1	8-719-800-89	s	TLY255
D2	8-719-800-89	s	TLY255
D3	8-719-800-89	s	TLY255
R1	1-247-706-11	s	CARBON 330 5% 1/4W
R2	1-247-706-11	s	CARBON 330 5% 1/4W
R3	1-247-706-11	s	CARBON 330 5% 1/4W

PD-40A BOARD

Ref No.	Parts No.	SP	Description
	A-6725-571-A	o	MOUNTED CIRCUIT BOARD, PD-40A
D1	8-719-200-02	s	10E-2
D2	8-719-200-02	s	10E-2
D3	8-719-200-02	s	10E-2
D4	8-719-200-02	s	10E-2
D5	8-719-200-02	s	10E-2
D6	8-719-200-02	s	10E-2
D7	8-719-200-02	s	10E-2
D8	8-719-200-02	s	10E-2
D10	8-719-200-02	s	10E-2
D11	8-719-200-02	s	10E-2
D12	8-719-200-02	s	10E-2
D13	8-719-200-02	s	10E-2
Q1	8-729-811-11	s	2SD1111
Q2	8-729-178-55	s	2SC2785-E
Q3	8-729-889-40	s	2SD894
Q4	8-729-811-11	s	2SD1111
Q5	8-729-178-55	s	2SC2785-E
Q6	8-729-889-40	s	2SD894
Q8	8-729-811-11	s	2SD1111
Q9	8-729-178-55	s	2SC2785-E
Q10	8-729-889-40	s	2SD894
Q11	8-729-811-11	s	2SD1111
Q12	8-729-178-55	s	2SC2785-E
Q13	8-729-178-55	s	2SC2785-E
Q14	8-729-889-40	s	2SD894
R6	1-532-685-00	s	LINK, IC
R12	1-532-685-00	s	LINK, IC
R19	1-532-685-00	s	LINK, IC
R25	1-532-685-00	s	LINK, IC

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref No.	Parts No.	SP	Description
PD-41 BOARD			
	A-6725-570-A	o	MOUNTED CIRCUIT BOARD, PD-41
D1	8-719-200-02	s	10E-2
D2	8-719-200-02	s	10E-2
D3	8-719-200-02	s	10E-2
D4	8-719-200-02	s	10E-2
D5	8-719-200-02	s	10E-2
D6	8-719-200-02	s	10E-2
Q1	8-729-811-11	s	2SD1111
Q2	8-729-178-55	s	2SC2785-E
Q3	8-729-889-40	s	2SD894
Q4	8-729-811-11	s	2SD1111
Q5	8-729-178-55	s	2SC2785-E
Q6	8-729-889-40	s	2SD894
R6	1-532-685-00	s	LINK, IC
R12	1-532-685-00	s	LINK, IC
PH-5 BOARD			
	1-603-737-00	o	PRINTED CIRCUIT BOARD, PH-5
D1	8-719-951-04	s	BR5104S
Q1	8-729-810-22	s	SPS102
PT-9 BOARD			
	1-605-018-00	o	PRINTED CIRCUIT BOARD, PT-9
Q1	8-729-377-13	s	2SA771-Y
PTC-30 BOARD			
	1-622-260-11	o	PRINTED CIRCUIT BOARD, PTC-30
IC3	8-719-939-50	s	GP1L52 "SP SWITCH"

Ref No.	Parts No.	SP	Description
PTC-33 BOARD			
	1-622-258-11	o	PRINTED CIRCUIT BOARD, PTC-33
IC1	8-719-940-86	s	GP1L53 "THREAD END DET"
IC2	8-719-940-86	s	GP1L53 "UNTHREAD END DET"
PTC-34 BOARD			
	1-622-259-11	o	PRINTED CIRCUIT BOARD, PTC-34
IC1	8-719-940-86	s	GP1L53 "FR UNTHREAD END DET"
PTC-35 BOARD			
	1-622-218-11	o	PRINTED CIRCUIT BOARD, PTC-35
IC1A	8-719-940-86	s	GP1L53 "TAKE-UP ROTATION DET"
IC1B	8-719-940-86	s	GP1L53 "SUPPLY ROTATION DET"
RM-39 BOARD			
	1-618-873-11	o	PRINTED CIRCUIT BOARD, RM-39
C1	1-101-006-00	s	CERAMIC 0.047 50V
C2	1-101-006-00	s	CERAMIC 0.047 50V
L1	1-410-623-11	s	4.7uH
L2	1-410-623-11	s	4.7uH
M1006	8-835-178-01	s	DC FN30-T26N1E "REEL"

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

RP-31A BOARD

Ref No.	Parts No.	SP	Description
	A-6711-823-A	o	MOUNTED CIRCUIT BOARD, RP-31A
C10	1-161-021-11	s	CERAMIC 0.047 10% 25V
C11	1-124-236-00	s	ELECT 47 20% 16V
C14	1-124-255-00	s	ELECT 1 20% 50V
C16	1-161-021-11	s	CERAMIC 0.047 10% 25V
C17	1-124-236-00	s	ELECT 47 20% 16V
C20	1-124-255-00	s	ELECT 1 20% 50V
CN121	1-564-005-00	s	6P
CN124	1-564-005-00	s	6P
CP1	1-560-914-00	s	2P
CP2	1-560-914-00	s	2P
CS1	1-561-724-00	o	2P
CS2	1-561-724-00	o	2P
IC3	8-741-126-50	s	BX-1265 (SONY)
IC6	8-741-126-50	s	BX-1265 (SONY)
L3	1-410-482-31	s	100uH
L4	1-410-482-31	s	100uH
Q3	8-729-600-24	s	2SC403-51
Q5	8-729-600-24	s	2SC403-51
RV4	1-228-991-00	s	VAR, CARBON 2.2k
RV6	1-228-991-00	s	VAR, CARBON 2.2k
T3	1-426-319-11	s	PB RF
T5	1-426-319-00	s	PB RF

SE-46 BOARD

Ref No.	Parts No.	SP	Description
	1-618-599-11	o	PRINTED CIRCUIT BOARD, SE-46
PC1	1-806-232-21	s	DETECTOR MB-1102/S.N

SV-93A BOARD

Ref No.	Parts No.	SP	Description
	⚠A-6715-364-A	o	MOUNTED CIRCUIT BOARD, SV-93A
C3	1-124-499-11	s	ELECT 1 20% 50V
C6	1-161-377-00	s	CERAMIC 0.0047 30% 16V
C7	1-161-374-11	s	CERAMIC 0.0015 30% 16V
C8	1-130-493-00	s	MYLAR 0.068 5% 50V
C10	1-131-350-00	s	TANTALUM 3.3 10% 35V
C12	1-162-299-21	s	CERAMIC 0.0068 30% 16V
C14	1-161-021-11	s	CERAMIC 0.047 10% 25V
C17	1-161-057-00	s	CERAMIC 0.033 10% 25V
C18	1-161-013-00	s	CERAMIC 0.01 10% 25V
C19	1-161-013-00	s	CERAMIC 0.01 10% 25V
C104	1-162-215-31	s	CERAMIC 47PF 5% 50V
C106	1-161-047-00	s	CERAMIC 0.0047 10% 25V
C111	1-161-042-00	s	CERAMIC 0.0018 10% 25V
C112	1-161-042-00	s	CERAMIC 0.0018 10% 25V
C116	1-162-286-31	s	CERAMIC 220PF 10% 50V
C120	1-162-288-31	s	CERAMIC 330PF 10% 50V
C203	1-162-211-31	s	CERAMIC 33PF 5% 50V
C204	1-162-211-31	s	CERAMIC 33PF 5% 50V
C301	1-161-013-00	s	CERAMIC 0.01 10% 25V
C302	1-161-040-00	s	CERAMIC 0.0012 10% 25V
C303	1-130-483-00	s	MYLAR 0.01 5% 50V
C306	1-162-286-31	s	CERAMIC 220PF 10% 50V
C307	1-162-288-31	s	CERAMIC 330PF 10% 50V
C308	1-161-013-00	s	CERAMIC 0.01 10% 25V
C309	1-161-013-00	s	CERAMIC 0.01 10% 25V
C312	1-124-499-11	s	ELECT 1 20% 50V
C409	1-161-379-00	s	CERAMIC 0.01 30% 16V
C410	1-161-379-00	s	CERAMIC 0.01 30% 16V
C411	1-162-207-31	s	CERAMIC 22PF 5% 50V
C412	1-162-282-31	s	CERAMIC 100PF 10% 50V
C413	1-162-284-31	s	CERAMIC 150PF 10% 50V
C418	1-162-282-31	s	CERAMIC 100PF 10% 50V
C422	1-124-464-11	s	ELECT 0.22 20% 50V
C423	1-162-289-31	s	CERAMIC 390PF 10% 50V
C430	1-124-463-00	s	ELECT 0.1 20% 50V
C433	1-124-499-11	s	ELECT 1 20% 50V
C507	1-162-282-31	s	CERAMIC 100PF 10% 50V
C702	1-161-379-00	s	CERAMIC 0.01 30% 16V
C703	1-161-379-00	s	CERAMIC 0.01 30% 16V
C704	1-161-379-00	s	CERAMIC 0.01 30% 16V
C705	1-161-379-00	s	CERAMIC 0.01 30% 16V
C709	1-161-379-00	s	CERAMIC 0.01 30% 16V
C710	1-161-379-00	s	CERAMIC 0.01 30% 16V
C711	1-161-379-00	s	CERAMIC 0.01 30% 16V
C712	1-161-379-00	s	CERAMIC 0.01 30% 16V
C714	1-161-379-00	s	CERAMIC 0.01 30% 16V
C716	1-161-379-00	s	CERAMIC 0.01 30% 16V
C718	1-161-379-00	s	CERAMIC 0.01 30% 16V
C719	1-161-039-00	s	CERAMIC 0.001 10% 25V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref No.	Parts No.	SP	Description
D1	8-719-911-19	s	1SS119
D2	8-719-911-19	s	1SS119
D3	8-719-911-19	s	1SS119
D5	8-719-911-19	s	1SS119
D7	8-719-911-55	s	U05G
D101	8-719-911-19	s	1SS119
D103	8-719-911-19	s	1SS119
D104	8-719-911-19	s	1SS119
D105	8-719-911-19	s	1SS119
D106	8-719-911-19	s	1SS119
D107	8-719-911-19	s	1SS119
D108	8-719-911-19	s	1SS119
D109	8-719-911-19	s	1SS119
D110	8-719-911-19	s	1SS119
D111	8-719-911-19	s	1SS119
D112	8-719-911-19	s	1SS119
D113	8-719-911-19	s	1SS119
D204	8-719-911-19	s	1SS119
D205	8-719-911-19	s	1SS119
D206	8-719-911-19	s	1SS119
D207	8-719-911-19	s	1SS119
D208	8-719-911-19	s	1SS119
D210	8-719-100-15	s	RD3.0E-B2
D211	8-719-911-19	s	1SS119
D301	8-719-911-19	s	1SS119
D401	8-719-911-19	s	1SS119
D402	8-719-911-19	s	1SS119
D405	8-719-911-19	s	1SS119
D406	8-719-911-19	s	1SS119
D407	8-719-911-19	s	1SS119
D408	8-719-911-19	s	1SS119
D409	8-719-911-19	s	1SS119
D410	8-719-911-19	s	1SS119
D411	8-719-911-19	s	1SS119
IC1	8-759-132-40	s	UPC324C (NEC)
IC2	8-759-700-08	s	NJM4558S (JRC)
IC3	8-759-705-58	s	NJM4558D-D (JRC)
IC5	8-759-140-53	s	UPD4053BC (NEC)
IC8	8-759-132-40	s	UPC324C (NEC)
IC9	8-759-132-40	s	UPC324C (NEC)
IC10	8-759-133-90	s	UPC339C (NEC)
IC11	8-759-240-30	s	TC4030BP (TOSHIBA)
IC12	8-759-135-80	s	UPC358C (NEC)
IC13	8-759-140-53	s	UPD4053BC (NEC)
IC14	8-759-205-76	s	TC504013BP (TOSHIBA)
IC15	8-759-200-01	s	TC4001UBP (TOSHIBA)
IC17	8-751-941-05	s	CX-194B-5 (SONY)
IC18	8-759-945-41	s	MB88505-547M (FUJITSU)
IC19	8-759-240-30	s	TC4030BP (TOSHIBA)
IC20	8-759-140-53	s	UPD4053BC (NEC)
IC21	8-743-915-10	s	BX-3915A (SONY)
IC22	8-759-135-80	s	UPC358C (NEC)

Ref No.	Parts No.	SP	Description
Q1	8-729-178-55	s	2SC2785-E
Q2	8-729-117-54	s	2SA1175-K
Q3	8-729-376-84	s	2SA768-G
Q4	8-729-804-91	s	2SD1682-S
Q5	8-729-177-43	s	2SD774-4
Q101	8-729-900-83	s	DTC124XS
O102	8-729-178-55	s	2SC2785-E
Q103	8-729-900-83	s	DTC124XS
Q104	8-729-117-54	s	2SA1175-K
Q106	8-729-178-55	s	2SC2785-E
Q107	8-729-105-72	s	2SK523-L1
Q108	8-729-900-83	s	DTC124XS
Q109	8-729-900-89	s	DTC144ES
Q110	8-729-178-55	s	2SC2785-E
Q111	8-729-376-84	s	2SA768-G
Q112	8-729-117-54	s	2SA1175-K
Q113	8-729-804-91	s	2SD1682-S
Q114	8-729-900-67	s	DTA124XS
Q201	8-729-900-83	s	DTC124XS
Q202	8-729-900-83	s	DTC124XS
Q203	8-729-900-83	s	DTC124XS
Q204	8-729-900-83	s	DTC124XS
Q205	8-729-900-83	s	DTC124XS
Q206	8-729-900-83	s	DTC124XS
Q304	8-729-178-55	s	2SC2785-E
Q401	8-729-178-55	s	2SC2785
Q403	8-729-178-55	s	2SC2785
Q404	8-729-178-55	s	2SC2785
Q408	8-729-600-24	s	2SC403-51
Q411	8-729-178-55	s	2SC2785-E
Q412	8-729-178-55	s	2SC2785-E
Q501	8-729-600-24	s	2SC403SP-51
R12	1-247-895-00	s	CARBON 470k 5% 1/4W
R13	1-247-881-00	s	CARBON 120k 5% 1/4W
R17	1-247-895-00	s	CARBON 470k 5% 1/4W
R33	1-247-849-00	s	CARBON 5.6k 5% 1/4W
R35	1-247-891-00	s	CARBON 330k 5% 1/4W
⚠R42	1-207-621-00	s	WIREWOUND 1.5 10% 3W
R125	1-247-887-00	s	CARBON 220k 5% 1/4W
R147	1-247-895-00	s	CARBON 470k 5% 1/4W
R151	1-247-891-00	s	CARBON 330k 5% 1/4W
R162	1-247-895-00	s	CARBON 470k 5% 1/4W
R172	1-247-891-00	s	CARBON 330k 5% 1/4W
R176	1-247-887-00	s	CARBON 220k 5% 1/4W
R178	1-247-895-00	s	CARBON 470k 5% 1/4W
R260	1-247-895-00	s	CARBON 470k 5% 1/4W
R306	1-247-895-00	s	CARBON 470k 5% 1/4W
R311	1-247-895-00	s	CARBON 470k 5% 1/4W
R414	1-247-744-11	s	CARBON 270k 5% 1/2W
⚠R461	1-207-636-00	s	WIREWOUND 100 10% 3W
R507	1-247-849-00	s	CARBON 5.6k 5% 1/4W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref No.	Parts No.	SP	Description
RV1	1-228-994-00	s	VAR, CARBON 10k
RV3	1-228-990-00	s	VAR, CARBON 1k
RV100	1-228-993-00	s	VAR, CARBON 4.7k
RV101	1-228-994-00	s	VAR, CARBON 10k
RV102	1-228-994-00	s	VAR, METAL GLAZE 10k
RV106	1-228-993-00	s	VAR, CARBON 4.7k
RV107	1-228-995-00	s	vAR, CARBON 22k
RV201	1-228-990-00	s	VAR, CARBON 1k
RV401	1-228-996-00	s	VAR, CARBON 47k
RV403	1-228-996-00	s	VAR, CARBON 47k
RV405	1-228-996-00	s	VAR, CARBON 47k
RV407	1-228-997-00	s	VAR, CARBON 100k
X1	1-527-376-00	s	CRYSTAL 3.58MHz
X2	1-527-734-00	s	CRYSTAL 6MHz

SY-106A BOARD

Ref No.	Parts No.	SP	Description
	⚠A-6717-454-A	o	MOUNTED CIRCUIT BOARD, SY-106A
C2	1-161-021-11	s	CERAMIC 0.047 10% 25V
C3	1-161-013-00	s	CERAMIC 0.01 10% 25V
C4	1-161-041-00	s	CERAMIC 0.0015 10% 25V
C5	1-161-013-00	s	CERAMIC 0.01 10% 25V
C6	1-161-055-00	s	CERAMIC 0.022 10% 25V
C10	1-162-286-31	s	CERAMIC 220PF 10% 50V
C11	1-124-499-11	s	ELECT 1 20% 50V
C14	1-162-286-31	s	CERAMIC 220PF 10% 50V
C15	1-161-020-11	s	CERAMIC 0.039 10% 25V
C17	1-124-499-11	s	ELECT 1 20% 50V
C18	1-131-358-00	s	TANTALUM 6.8 10% 25V
C19	1-161-013-00	s	CERAMIC 0.01 10% 25V
C20	1-161-057-00	s	CERAMIC 0.033 10% 25V
C21	1-161-013-00	s	CERAMIC 0.01 10% 25V
C22	1-162-216-31	s	CERAMIC 51PF 5% 50V
C23	1-124-499-11	s	ELECT 1 20% 50V
C24	1-161-021-11	s	CERAMIC 0.047 10% 25V
C30	1-124-499-11	s	ELECT 1 20% 50V
C31	1-161-039-00	s	CERAMIC 0.001 10% 25V
C32	1-162-211-31	s	CERAMIC 33PF 5% 50V
C33	1-161-021-11	s	CERAMIC 0.047 10% 25V
C34	1-161-039-00	s	CERAMIC 0.001 10% 25V
C36	1-161-021-11	s	CERAMIC 0.047 10% 25V
C37	1-162-211-31	s	CERAMIC 33PF 5% 50V
C38	1-161-055-00	s	CERAMIC 0.022 10% 25V
C42	1-161-021-11	s	CERAMIC 0.047 10% 25V
C46	1-162-290-31	s	CERAMIC 470PF 10% 50V
C47	1-162-210-31	s	CERAMIC 30PF 5% 50V
C48	1-162-210-31	s	CERAMIC 30PF 5% 50V
C49	1-124-499-11	s	ELECT 1 20% 50V
C50	1-124-499-11	s	ELECT 1 20% 50V
C55	1-162-290-31	s	CERAMIC 470PF 10% 50V

Ref No.	Parts No.	SP	Description
CN505	1-506-815-11	o	HOUSING, BOARD IN CONNECTOR 6P
	1-563-180-11	o	HOUSING, CONNECTOR 6P
CN507	1-506-821-11	o	HOUSING, BOARD IN CONNECTOR 12P
	1-563-186-11	o	HOUSING, CONNECTOR 12P
CN508	1-506-821-11	o	HOUSING, BOARD IN CONNECTOR 12P
	1-563-186-11	o	HOUSING, CONNECTOR 12P
D1	8-719-911-19	s	1SS119
D2	8-719-911-19	s	1SS119
D3	8-719-911-19	s	1SS119
D4	8-719-911-19	s	1SS119
D5	8-719-911-19	s	1SS119
D6	8-719-911-19	s	1SS119
D7	8-719-911-19	s	1SS119
D8	8-719-911-19	s	1SS119
D9	8-719-911-19	s	1SS119
D10	8-719-911-19	s	1SS119
D11	8-719-911-19	s	1SS119
D12	8-719-911-19	s	1SS119
D13	8-719-911-19	s	1SS119
D14	8-719-911-19	s	1SS119
D15	8-719-911-19	s	1SS119
D16	8-719-911-19	s	1SS119
D17	8-719-911-19	s	1SS119
D18	8-719-911-19	s	1SS119
D20	8-719-911-19	s	1SS119
D21	8-719-911-55	s	U05-G
D22	8-719-911-55	s	U05-G
D23	8-719-911-55	s	U05-G
D24	8-719-911-19	s	1SS119
D25	8-719-911-19	s	1SS119
D26	8-719-911-19	s	1SS119
D31	8-719-911-19	s	1SS119
D32	8-719-911-19	s	1SS119
D33	8-719-911-19	s	1SS119
D43	8-719-101-97	s	1SS97-1
IC1	8-759-145-58	s	UPC4558C (NEC)
IC2	8-759-145-58	s	UPC4558C (NEC)
IC3	8-759-345-38	s	HD14538BP (HITACHI)
IC4	8-759-135-80	s	UPC358C (NEC)
IC5	8-759-145-58	s	UPC4558C (NEC)
IC7	8-759-945-39	s	MB88525-177M (FUJITSU)
IC8	8-759-729-03	s	NJM2903D (JRC)
IC9	8-759-600-24	s	M54543L (MITSUBISHI)
IC10	8-759-600-24	s	M54543L (MITSUBISHI)
IC11	8-759-240-69	s	TC4069UBP (TOSHIBA)
IC12	8-759-945-43	s	MB88505-549M (FUJITSU)
IC13	8-759-220-00	s	TC40H000P (TOSHIBA)
IC14	8-759-913-99	s	MB88201-173N (FUJITSU)
IC15	8-759-729-03	s	NJM2903D (JRC)
IC17	8-759-240-01	s	TC4001BP (TOSHIBA)
IC18	8-759-240-69	s	TC4069UBP (TOSHIBA)
IC19	8-759-345-38	s	HD14538BP (HITACHI)
IC20	8-759-202-55	s	TC74HC244P (TOSHIBA)

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Ref No.	Parts No.	SP	Description
Q1	8-729-177-43	s	2SD774-4
Q3	8-729-889-40	s	2SD894
Q4	8-729-178-55	s	2SC2785-E
Q5	8-729-178-55	s	2SC2785-E
Q6	8-729-178-55	s	2SC2785-E
Q7	8-729-178-55	s	2SC2785-E
Q8	8-729-178-55	s	2SC2785-E
Q9	8-729-900-89	s	DTC144ES
Q10	8-729-117-54	s	2SA1175-K
Q11	8-729-900-89	s	DTC144ES
Q12	8-729-175-54	s	2SA1175-K
Q13	8-729-900-89	s	DTC144ES
Q14	8-729-900-89	s	DTC144ES
Q15	8-729-178-55	s	2SC2785-E
Q16	8-729-178-55	s	2SC2785-E
Q17	8-729-900-89	s	DTC144ES
Q18	8-729-900-89	s	DTC144ES
Q19	8-729-900-89	s	DTC144ES
Q20	8-729-178-55	s	2SC2785-E
Q23	8-729-900-89	s	DTC144ES
Q24	8-729-900-89	s	DTC144ES
Q26	8-729-178-55	s	2SC2785-E
Q27	8-729-178-55	s	2SC2785-E
Q28	8-729-117-54	s	2SA1175-K
Q29	8-729-178-55	s	2SC2785-E
Q31	8-729-178-55	s	2SC2785-E
Q35	8-729-398-62	s	2SC1986
Q36	8-729-900-89	s	DTC144ES
Q37	8-729-900-89	s	DTC144ES
Q38	8-729-900-89	s	DTC144ES
Q41	8-729-900-89	s	DTC144ES
Q42	8-729-900-89	s	DTC144ES
Q43	8-729-900-89	s	DTC144ES
Q44	8-729-811-11	s	2SD1111
⚠R11	1-207-674-00	s	WIREWOUND 4.7 10% 6W
R13	1-247-895-00	s	CARBON 470k 5% 1/4W
R24	1-247-895-00	s	CARBON 470k 5% 1/4W
R32	1-247-891-00	s	CARBON 330k 5% 1/4W
R33	1-247-883-00	s	CARBON 150k 5% 1/4W
R38	1-247-891-00	s	CARBON 330k 5% 1/4W
R40	1-247-887-00	s	CARBON 220k 5% 1/4W
R41	1-247-701-11	s	CARBON 120 5% 1/4W
R47	1-247-881-00	s	CARBON 120k 5% 1/4W
R48	1-247-881-00	s	CARBON 120k 5% 1/4W
R76	1-247-887-00	s	CARBON 220k 5% 1/4W
R85	1-247-887-00	s	CARBON 220k 5% 1/4W
R112	1-246-449-25	s	CARBON 100 5% 1/4W
R159	1-214-853-00	s	METAL 360 1% 1/2W
R160	1-214-852-00	s	METAL 330 1% 1/2W
R189	1-247-887-00	s	CARBON 220k 5% 1/4W
R192	1-532-637-00	s	LINK, IC
R201	1-532-605-00	s	LINK, IC
R204	1-532-637-00	s	LINK, IC
R300	1-532-769-21	s	FUSE, MICRO 0.2A

Ref No.	Parts No.	SP	Description
RV1	1-230-722-11	s	VAR, CARBON 22k
RV2	1-230-720-11	s	VAR, CARBON 4.7k
RV3	1-230-720-11	s	VAR, CARBON 4.7k
RV4	1-230-722-11	s	VAR, CARBON 22k
SW1	1-552-509-00	s	DIP
X1	1-567-143-00	s	CERAMIC 6MHz
X2	1-567-192-11	s	CERAMIC 4MHz

TG-22 BOARD

Ref No.	Parts No.	SP	Description
	1-618-597-11	o	PRINTED CIRCUIT BOARD, TG-22
D1	8-719-904-55	s	GL-5HD5

UR-14 BOARD

Ref No.	Parts No.	SP	Description
	⚠1-413-248-11	s	SWITCHING REGULATOR, UR-14
⚠C101	1-161-742-00	s	CERAMIC 2200PF 20% 400V
C102	1-161-742-00	s	CERAMIC 2200PF 20% 400V
C103	1-161-742-00	s	CERAMIC 2200PF 20% 400V
C104	1-161-742-00	s	CERAMIC 2200PF 20% 400V
C105	1-136-212-00	s	MYLAR 0.1 20% 250V
C106	1-136-212-00	s	MYLAR 0.1 20% 250V
C107	1-161-742-00	s	CERAMIC 2200PF 20% 400V
C108	1-161-742-00	s	CERAMIC 2200PF 20% 400V
C109	1-124-961-00	s	ELECT 220 20% 200V
C110	1-124-023-00	s	ELECT 4.7 20% 350V
C111	1-124-023-00	s	ELECT 4.7 20% 350V
C112	1-124-549-00	s	ELECT 100 20% 10V
C113	1-124-961-00	s	ELECT 220 20% 200V
C114	1-124-549-00	s	ELECT 100 20% 10V
C201	1-108-413-00	s	MYLAR 2200PF 10% 200V
C202	1-108-413-00	s	MYLAR 2200PF 10% 200V
C203	1-161-825-11	s	CERAMIC 220PF 10% 500V
C204	1-161-825-11	s	CERAMIC 220PF 10% 500V
C205	1-161-825-11	s	CERAMIC 220PF 10% 500V
C206	1-161-825-11	s	CERAMIC 220PF 10% 500V
C207	1-123-357-00	s	ELECT 22 20% 50V
C209	1-108-413-00	s	MYLAR 2200PF 10% 200V
C210	1-136-153-00	s	MYLAR 0.01 5% 50V
C211	1-130-516-00	s	MYLAR 0.01 5% 50V
C212	1-124-556-00	s	ELECT 2200 20% 16V
C213	1-124-556-00	s	ELECT 2200 20% 16V
C214	1-124-556-00	s	ELECT 2200 20% 16V
C215	1-124-556-00	s	ELECT 2200 20% 16V
C216	1-123-326-00	s	ELECT 3300 20% 16V
C217	1-123-332-00	s	ELECT 47 20% 50V

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Ref No.	Parts No.	SP	Description
C651	1-124-445-00	s	ELECT 100 20% 16V
C652	1-130-591-11	s	MYLAR 3300PF 2% 100V
C653	1-136-141-00	s	MYLAR 1000PF 10% 50V
C654	1-136-165-00	s	MYLAR 0.1 5% 50V
C655	1-123-318-00	s	ELECT 33 16V
⚠CN101	1-560-436-00	o	REEPTACLE, 3P
	1-561-218-11	o	HOUSING, 3P
	1-561-254-11	o	CONTACT
CN201	1-560-438-00	o	RECEPTACLE, 5P
	1-561-424-11	o	HOUSING, 5P
	1-561-254-11	o	CONTACT
D101	8-719-300-00	s	LB-156
D201	8-719-908-00	s	ESAC33-02CS
D202	8-719-908-00	s	ESAC33-02CS
D203	8-719-900-93	s	V09C
D204	8-719-900-93	s	V09C
D205	8-719-815-55	s	1S1555
D206	8-719-100-61	s	RD11EB2
D208	8-719-101-67	s	RD7.5EL2
D209	8-719-100-30	s	RD5.1EB2
D210	8-719-100-30	s	RD5.1EB2
D651	8-719-200-02	s	10E-2
D652	8-719-100-70	s	RD15EB1
D653	8-719-815-55	s	1S1555
FB101	1-543-060-00	s	CORE
FB102	1-543-060-00	s	CORE
FB201	1-543-060-00	s	CORE
FB202	1-543-060-00	s	CORE
FB203	1-543-060-00	s	CORE
FB204	1-543-060-00	s	CORE
FB205	1-543-060-00	s	CORE
FB206	1-543-060-00	s	CORE
FB207	1-543-060-00	s	CORE
FB208	1-543-060-00	s	CORE
FB209	1-543-060-00	s	CORE
IC651	8-759-937-00	s	MB3759 (FUJITSU)
⚠L101	1-421-848-11	s	LINE FILTER
L201	1-421-849-11	s	CHOKE, 2.4mH
L203	1-408-316-00	s	CHOKE
L204	1-421-850-11	s	CHOKE, 12
L205	1-421-329-00	s	CHOKE

Ref No.	Parts No.	SP	Description
Q101	8-729-901-72	s	2SC3317
Q102	8-729-901-72	s	2SC3317
Q103	8-729-100-13	s	2SC2001
Q104	8-729-100-13	s	2SC2001
Q201	8-729-600-27	s	2SC2603-F
Q202	8-729-117-54	s	2SA1175-F
R101	1-214-947-00	s	METAL 2.7M 1% 1/2W
⚠R102	1-205-715-11	s	CEMENT 3.3 5% 5W
R103	1-246-529-00	s	CARBON 220k 5% 1/4W
R104	1-246-529-00	s	CARBON 220k 5% 1/4W
⚠R105	1-212-934-00	s	METAL 1 5% 1/2W
R106	1-247-107-00	s	NF CARBON 100 5% 1/5W
R107	1-246-529-00	s	CARBON 220k 5% 1/4W
R108	1-246-529-00	s	CARBON 220k 5% 1/4W
⚠R109	1-212-934-00	s	METAL 1 5% 1/2W
R110	1-247-107-00	s	NF CARBON 100 5% 1/4W
⚠R111	1-205-715-00	s	CEMENT 3.3 5% 5W
R201	1-206-475-00	s	METAL 33 5% 2W
R202	1-535-369-00	s	SHUNT
⚠R203	1-213-151-00	s	METAL 4.7k 5% 5W
R204	1-247-131-00	s	NF CARBON 1k 5% 1/4W
R205	1-247-143-00	s	NF CARBON 3.3k 5% 1/4W
R206	1-249-455-11	s	NF CARBON 4.7k 5% 1/4W
R207	1-247-139-00	s	NF CARBON 2.2k 5% 1/4W
R208	1-247-123-00	s	NF CARBON 470 5% 1/4W
R209	1-247-115-00	s	NF CARBON 220 5% 1/4W
R212	1-247-224-00	s	NF CARBON 220 5% 1/2W
R651	1-249-425-11	s	NF CARBON 4.7k 5% 1/6W
RV651	1-228-644-00	s	VAR, METAL 1k 0.3W
⚠T101	1-448-423-11	s	CONVERTER
T102	1-437-120-00	s	DRIVE

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VP-21A BOARD

Ref No.	Parts No.	SP	Description			
	A-6711-822-A	o	MOUNTED CIRCUIT BOARD, VP-21A			
C29	1-162-215-31	s	CERAMIC	47PF	5%	50V
C41	1-126-103-11	s	ELECT	470	20%	16V
C47	1-162-217-31	s	CERAMIC	56PF	5%	50V
C48	1-124-499-11	s	ELECT	1	20%	50V
C49	1-124-499-11	s	ELECT	1	20%	50V
C59	1-124-499-11	s	ELECT	1	20%	50V
C60	1-124-499-11	s	ELECT	1	20%	50V
C87	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C96	1-124-499-11	s	ELECT	1	20%	50V
C106	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C111	1-107-026-00	s	MICA	5.1PF	0.5PF	500V
C114	1-107-026-00	s	MICA	5.1PF	0.5PF	500V
C115	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C117	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C122	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C124	1-124-499-11	s	ELECT	1	20%	50V
C130	1-161-379-00	s	CERAMIC	0.01	30%	16V
C203	1-124-499-11	s	ELECT	1	20%	50V
C207	1-124-499-11	s	ELECT	1	20%	50V
C211	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C213	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C214	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C224	1-161-379-00	s	CERAMIC	0.01	30%	16V
C233	1-102-761-00	s	CERAMIC	75PF	5%	50V
C254	1-131-363-00	s	TANTALUM	4.7	10%	16V
C255	1-131-405-00	s	ELECT (SOLID)	0.33	5%	25V
C265	1-127-475-00	s	ELECT (SOLID)	0.22	5%	25V
C269	1-124-499-11	s	ELECT	1	20%	50V
C271	1-161-379-00	s	CERAMIC	0.01	30%	16V
C275	1-131-347-00	s	TANTALUM	1	10%	35V
C276	1-131-379-00	s	TANTALUM	22	10%	10V
C277	1-131-347-00	s	TANTALUM	1	10%	35V
C278	1-131-379-00	s	TANTALUM	22	10%	10V
C283	1-107-096-00	s	MICA	300PF	5%	50V
C285	1-107-096-00	s	MICA	300PF	5%	50V
C290	1-131-361-00	s	TANTALUM	2.2	10%	16V
C293	1-131-349-00	s	TANTALUM	2.2	10%	35V
C295	1-163-033-00	s	CERAMIC CHIP	0.022		50V
C405	1-107-162-00	s	MICA	43PF	5%	500V
C406	1-124-907-00	s	ELECT	10	20%	50V
C407	1-123-875-11	s	ELECT	10	20%	50V
CN1002	1-563-356-11	s	CONNECTOR, MULTI 8P "TV"			
CN1003	1-563-354-11	o	BNC "VIDEO OUT-1"			
CN1004	1-563-354-11	o	BNC "VIDEO OUT-2"			
CN1005	1-563-354-11	o	BNC "RF OFF TAPE OUT"			
CN1007	1-563-354-11	o	BNC "EXT SYNC IN"			
CN1008	1-563-354-11	o	BNC "EXT SC IN"			
CN1009	1-563-989-11	s	JACK, PIN (RCA) 1P "AUDIO MONITOR"			

Ref No.	Parts No.	SP	Description
D1	8-719-104-31	s	1S2837
D3	8-719-104-31	s	1S2837
D4	8-719-911-19	s	1SS119
D5	8-719-911-19	s	1SS119
D6	8-719-911-19	s	1SS119
D7	8-719-911-19	s	1SS119
D8	8-719-101-97	s	1SS97-1
D9	8-719-101-97	s	1SS97-1
D201	8-719-104-10	s	1SS99
D202	8-719-104-10	s	1SS99
D203	8-719-104-10	s	1SS99
D204	8-719-104-10	s	1SS99
D205	8-719-815-59	s	1S1555-S
D206	8-719-915-43	s	FC54M
D207	8-719-815-59	s	1S1555-S
D208	8-719-911-19	s	1SS119
D209	8-719-911-19	s	1SS119
D211	8-719-815-59	s	1S1555-S
D212	8-719-815-59	s	1S1555-S
D213	8-719-911-19	s	1SS119
D214	8-719-911-19	s	1SS119
D215	8-719-911-19	s	1SS119
D216	8-719-911-19	s	1SS119
D217	8-719-911-19	s	1SS119
DL1	1-415-162-21	s	50ns
DL2	1-415-154-21	s	35ns
FL1	1-231-581-21	s	HIGH PASS
FL2	1-235-623-11	s	HIGH PASS
FL3	1-236-039-11	s	LOW PASS
FL4	1-236-037-11	s	LOW PASS
FL5	1-235-474-11	s	LOW PASS
FL6	1-235-617-11	s	LOW PASS
FL200	1-409-428-11	s	TRAP
FL201	1-236-038-11	s	BAND PASS
FL203	1-236-036-11	s	BAND PASS
IC1	8-751-340-10	s	CX-134A (SONY)
IC2	8-741-114-00	s	BX-1140 (SONY)
IC3	8-759-708-05	s	NJM78L05 (JRC)
IC4	8-741-124-80	s	BX-1248 (SONY)
IC5	8-751-350-10	s	CX-135 (SONY)
IC6	8-752-321-75	s	CXL5005P (SONY)
IC7	8-759-927-56	s	BA7021 (ROHM)
IC8	8-759-708-09	s	NJM78L09A (JRC)
IC9	8-749-900-94	s	BX-1472 (SONY)
IC10	8-743-880-00	s	BX-388 (SONY)
IC11	8-759-200-60	s	TA7060AP (TOSHIBA)
IC12	8-759-208-10	s	TC4053BP (TOSHIBA)
IC13	8-749-900-68	s	BX-1447L (SONY)
IC14	8-759-208-17	s	TC4528BP (TOSHIBA)
IC15	8-749-900-59	s	BX-1448L (SONY)
IC16	8-759-208-10	s	TC4053BP (TOSHIBA)
IC17	8-749-938-90	s	BX-389 (SONY)
IC18	8-759-240-01	s	TC4001BP (TOSHIBA)
IC20	8-759-208-17	s	TC4528BP (TOSHIBA)
IC201	8-750-000-46	s	CX-872 (SONY)

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Ref No.	Parts No.	SP	Description
IC202	8-758-050-00	s	CX-805 (SONY)
IC203	8-741-125-10	s	BX-1251 (SONY)
IC204	8-759-200-60	s	TA7060AP (TOSHIBA)
IC205	8-759-208-10	s	TC4053BP (TOSHIBA)
IC206	8-759-208-17	s	TC4528BP (TOSHIBA)
IC207	8-759-208-17	s	TC4528BP (TOSHIBA)
IC208	8-752-006-10	s	CX20061 (SONY)
L3	1-410-087-31	s	10mH
L4	1-410-087-31	s	10mH
L5	1-410-119-11	s	1mH
L14	1-410-087-31	s	10mH
LV1	1-407-569-00	s	COIL, VARIABLE 10uH
LV2	1-407-268-00	s	MICRO INDUCTOR 1.5mH
Q1	8-729-178-55	s	2SC2785-E
Q2	8-729-271-22	s	2SC2712G
Q3	8-729-271-22	s	2SC2712G
Q4	8-729-271-22	s	2SC2712G
Q5	8-729-271-22	s	2SC2712G
Q6	8-729-271-22	s	2SC2712G
Q7	8-729-113-33	s	2SB733-T-4
Q8	8-729-901-01	s	DTC144EK
Q9	8-729-901-01	s	DTC144EK
Q10	8-729-271-22	s	2SC2712G
Q11	8-729-271-22	s	2SC2712G
Q12	8-729-901-01	s	DTC144EK
Q13	8-729-901-01	s	DTC144EK
Q15	8-729-271-22	s	2SC2712G
Q16	8-729-271-22	s	2SC2712G
Q17	8-729-271-22	s	2SC2712G
Q18	8-729-201-05	s	2SC2878-B
Q19	8-729-216-22	s	2SA1162
Q20	8-729-271-22	s	2SC2712G
Q21	8-729-216-22	s	2SA1162
Q22	8-729-271-22	s	2SC2712G
Q23	8-729-271-22	s	2SC2712G
Q24	8-729-216-22	s	2SA1162
Q25	8-729-901-01	s	DTC144EK
Q26	8-729-201-05	s	2SC2878-B
Q27	8-729-901-01	s	DTC144EK
Q28	8-729-201-05	s	2SC2878-B
Q29	8-729-901-01	s	DTC144EK
Q30	8-729-271-22	s	2SC2712G
Q31	8-729-271-22	s	2SC2712G
Q32	8-729-901-01	s	DTC144EK
Q33	8-729-271-22	s	2SC2712G
Q34	8-729-271-22	s	2SC2712G
Q35	8-729-271-22	s	2SC2712G
Q36	8-729-271-22	s	2SC2712G
Q37	8-729-201-05	s	2SC2878-B
Q38	8-729-901-01	s	DTC144EK
Q39	8-729-271-22	s	2SC2712G
Q40	8-729-271-22	s	2SC2712G
Q41	8-729-901-01	s	DTC144EK
Q42	8-729-271-22	s	2SC2712G
Q43	8-729-178-55	s	2SC2785-E
Q44	8-729-271-22	s	2SC2712G
Q45	8-729-901-01	s	DTC144EK
Q47	8-729-178-55	s	2SC2785-E
Q48	8-729-271-22	s	2SC2712G
Q49	8-729-201-05	s	2SC2878-B
Q50	8-729-271-22	s	2SC2712G
Q51	8-729-216-22	s	2SA1162
Q52	8-729-271-22	s	2SC2712G
Q53	8-729-271-22	s	2SC2712G
Q54	8-729-271-22	s	2SC2712G
Q55	8-729-216-22	s	2SA1162
Q56	8-729-271-22	s	2SC2712G
Q57	8-729-271-22	s	2SC2712G
Q58	8-729-216-22	s	2SA1162
Q59	8-729-271-22	s	2SC2712G-
Q60	8-729-271-22	s	2SC2712G
Q61	8-729-901-01	s	DTC144EK
Q63	8-729-901-01	s	DTC144EK
Q65	8-729-900-89	s	DTC144ES
Q201	8-729-271-22	s	2SC2712G
Q202	8-729-201-05	s	2SC2878-B
Q203	8-729-201-05	s	2SC2878-B
Q204	8-729-901-01	s	DTC144EK
Q205	8-729-271-22	s	2SC2712G
Q206	8-729-271-22	s	2SC2712G
Q207	8-729-271-22	s	2SC2712G
Q209	8-729-901-01	s	DTC144EK
Q210	8-729-271-22	s	2SC2712G
Q211	8-729-271-22	s	2SC2712G
Q212	8-729-271-22	s	2SC2712G
Q213	8-729-271-22	s	2SC2712G
Q214	8-729-271-22	s	2SC2712G
Q215	8-729-271-22	s	2SC2712G
Q216	8-729-271-22	s	2SC2712G
Q217	8-729-201-05	s	2SC2878-B
Q218	8-729-271-22	s	2SC2712G
Q219	8-729-271-22	s	2SC2712G
Q220	8-729-201-05	s	2SC2878-B
Q221	8-729-178-55	s	2SC2785-E
Q223	8-729-201-05	s	2SC2878-B
Q225	8-729-201-05	s	2SC2878-B
Q226	8-729-201-05	s	2SC2878-B
Q228	8-729-216-22	s	2SA1162
Q230	8-729-201-05	s	2SC2878-B
Q231	8-729-201-05	s	2SC2878-B
Q401	8-729-600-24	s	2SC403SP-51
Q402	8-729-600-24	s	2SC403SP-51
Q403	8-729-201-05	s	2SC2878-B
R5	1-249-457-11	s	CARBON 6.8 5% 1/4W

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Ref No.	Parts No.	SP	Description
RV1	1-228-991-00	s	VAR, CARBON 2.2k
RV2	1-228-991-00	s	VAR, CARBON 2.2k
RV3	1-228-991-00	s	VAR, CARBON 2.2k
RV4	1-228-991-00	s	VAR, CARBON 2.2k
RV5	1-228-989-00	s	VAR, CARBON 470
RV6	1-228-995-00	s	VAR, CARBON 22k
RV7	1-228-993-00	s	VAR, CARBON 4.7k
RV8	1-228-991-00	s	VAR, CARBON 2.2k
RV9	1-228-991-00	s	VAR, CARBON 2.2k
RV10	1-228-991-00	s	VAR, CARBON 2.2k
RV11	1-228-994-00	s	VAR, CARBON 10k
RV12	1-228-990-00	s	VAR, CARBON 1k
RV13	1-228-990-00	s	VAR, CARBON 1k
RV14	1-228-990-00	s	VAR, CARBON 1k
RV15	1-228-991-00	s	VAR, CARBON 2.2k
RV16	1-228-997-00	s	VAR, CARBON 100k
RV17	1-228-994-00	s	VAR, CARBON 10k
RV19	1-228-995-00	s	VAR, CARBON 22k
RV20	1-228-991-00	s	VAR, CARBON 2.2k
RV201	1-228-995-00	s	VAR, CARBON 22k
RV203	1-228-991-00	s	VAR, CARBON 2.2k
RV204	1-228-993-00	s	VAR, CARBON 4.7k
RV205	1-228-990-00	s	VAR, CARBON 1k
RV207	1-228-995-00	s	VAR, CARBON 22k
RV208	1-228-995-00	s	VAR, CARBON 22k
RV209	1-228-995-00	s	VAR, CARBON 22k
RV210	1-228-995-00	s	VAR, CARBON 22k
RV211	1-228-994-00	s	VAR, CARBON 10k
RV212	1-228-993-00	s	VAR, CARBON 4.7k
RV213	1-228-991-00	s	VAR, CARBON 2.2k
RV214	1-228-991-00	s	VAR, CARBON 2.2k
RV215	1-228-991-00	s	VAR, CARBON 2.2k
RV401	1-228-994-00	s	VAR, CARBON 10k
T1	1-425-785-21	s	BURST AMP (BAT)
X1	1-527-536-00	s	OSCILLATOR, CRYSTAL 3.58MHz

Ref No.	Parts No.	SP	Description
FRAME			
	A-6709-605-A	s	HEAD DRUM ASSY, DUH-41A-R
	A-6709-602-A	s	UPPER DRUM ASSY, DUR-41-R
⚠	1-413-248-11	s	SWITCHING REGULATOR UR-14
	1-464-801-11	s	ENCODER, ROTARY
⚠CN1001	1-534-517-00	s	CORD, AC
CN1004	1-563-355-11	s	JACK "REMOTE"
CN1011	1-507-312-00	s	RECEPTACLE 10P "RF MOD"
CN1012	1-507-410-00	s	RECEPTACLE (F TYPE) "RF OUT"
CN1017	1-563-030-21	s	CONNECTOR XLR 3P MALE "AUDIO LINE OUT CH-1"
CN1016	1-563-030-21	s	CONNECTOR XLR 3P MALE "AUDIO LINE OUT CH-2"
CN1002	1-563-356-11	s	CONNECTOR, MULTI 8P "TV"
CN1003	1-563-354-11	o	BNC "VIDEO OUT-1"
CN1004	1-563-354-11	o	BNC "VIDEO OUT-2"
CN1005	1-563-354-11	o	BNC "RF OFF TAPE OUT"
CN1007	1-563-354-11	o	BNC "EXT SYNC IN"
CN1008	1-563-354-11	o	BNC "EXT SC IN"
CN1009	1-563-989-11	s	JACK, PIN (RCA) 1P "AUDIO MONITOR"
CS1001	1-586-633-00	s	CONDENSATION SENSOR
⚠F1	1-532-745-11	s	FUSE, GLASS TUBE 3.15A 125V
F2	1-532-744-11	s	FUSE, GLASS TUBE 2.5A 125V
F3	1-532-742-11	s	FUSE, GLASS TUBE 1.6A 125V
PM1001	1-454-415-11	s	SOLENOID, PLUNGER 12V 9.5/52 OHM "TAKE-UP IDLER"
PM1002	1-454-417-31	s	SOLENOID, PLUNGER 12V 12/90 OHM "TAKE-UP BRAKE"
PM1004	1-454-415-11	s	SOLENOID, PLUNGER 12V 9.5/52 OHM "SUPPLY IDLER"
PM1005	1-454-417-31	s	SOLENOID, PLUNGER 12V 12/90 OHM "SUPPLY BRAKE"
PM1006	1-454-446-11	s	SOLENOID, PLUNGER 12V 80 OHM "SKEW"
PM1007	1-454-417-31	s	SOLENOID, PLUNGER 12V 12/90 OHM "SEARCH"
PM1008	1-454-416-31	s	SOLENOID, PLUNGER 12V, 7/35 OHM "PINCH"
M1001	8-835-258-01	s	DC, BHF-1915B "CAPSTAN"
M1005	8-835-179-01	s	DC, MCB2B15 "CASSETTE COMPARTMENT"
M1006	8-835-178-01	s	DC FN30-T26N1E "REEL"

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

Ref No.	Parts No.	SP	Description
ME1001	1-520-393-00	s	METER, AUDIO
ME1002	1-520-393-00	s	METER, AUDIO
RV1001	1-237-703-11	s	VAR, CARBON 2k/2k "HEADPHONES LEVEL"
RV1002	1-237-701-11	s	VAR, CARBON 5k "CH-1 REC"
RV1003	1-237-701-11	s	VAR, CARBON 5k "CH-2 REC"
RV1004	1-237-215-11	s	VAR, CARBON 100k "TRACKING"
⚠S1001	1-570-117-31	s	SWITCH, ROCKER "AC POWER"
	1-509-898-00	s	RECEPTACLE
	1-509-910-00	s	HOUSING, CONNECTOR (2P)
	1-561-218-00	o	CONNECTOR SOCKET, 3P
	1-561-254-00	s	CONNECTOR CONTACT
S1002	1-552-271-00	s	SWITCH, SLIDE "TIMER"

15-4. PACKING MATERIAL AND ACCESSORIES (SUPPLIED)

Parts No.	SP	Description
3-662-364-00	s	BAG, PROTECTION
3-701-630-00	s	BAG, POLYETHYLENE
3-718-355-01	o	COVER, RF
3-718-359-01	o	CUSHION (UPPER)
3-718-360-01	o	CUSHION (LOWER)
3-718-409-01	o	INDIVIDUAL CARTON
3-769-145-21	s	MANUAL, INSTRUCTION

15-5. FIXTURE

Parts No.	SP	Description
J-6001-820-A	s	DRUM ECCENTRICITY GAUGE (3)
J-6001-830-A	s	DRUM ECCENTRICITY GAUGE (2)
J-6001-840-A	s	DRUM ECCENTRICITY GAUGE (1)
J-6001-930-A	s	DRUM ECCENTRICITY GAUGE (4)
J-6009-830-A	s	FLATNESS PLATE
J-6026-240-A	s	ADJUSTMENT DRIVER
J-6130-010-A	s	REEL TABLE HEIGHT CHECK BASE JIG
J-6130-020-A	s	REEL TABLE HEIGHT CHECK JIG
J-6153-020-A	s	DIHEDRAL ADJUSTMENT DRIVER
J-6150-140-A	s	ECCENTRICITY SCTEWDRIVER 6 MM DIA.
J-6153-580-A	s	PINCH LEVER ADJUSTMENT JIG
Y-2031-001-0	s	CLEANING FLUID
2-034-697-00	s	CLEANING PIECE
3-702-216-01	s	BACK TENSION ADJUSTMENT JIG
7-661-018-01	s	SONY OIL
7-732-050-20	s	TENISON SCALE (50g full scale)
7-732-050-30	s	TENSION SCALE (100g full scale)
7-732-050-40	s	TENSION SCALE (200g full scale)
7-732-050-50	s	TENSION SCALE (500g full scale)
8-899-999-53	s	TORQUE MEASUREMENT TAPE
8-960-015-04	s	ALIGNMENT TAPE RR5-3 SA
9-911-053-00	s	THICKNESS GAUGE